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LOGINID: SSSPTA1626GMS

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 NOV 21 CAS patent coverage to include exemplified prophetic
substances identified in English, French, German-,
and Japanese-language basic patents from 2004-present

NEWS 3 NOV 26 MARPAT enhanced with FSORT command NEWS 4 NOV 26 CHEMSAFE now available on STN Easy

NEWS 5 NOV 26 Two new SET commands increase convenience of STN searching

NEWS 6 DEC 01 ChemPort single article sales feature unavailable NEWS 7 DEC 12 GBFULL now offers single source for full-text

coverage of complete UK patent families
NEWS 8 DEC 17 Fifty-one pharmaceutical ingredients added to PS

NEWS 9 JAN 06 The retention policy for unread STNmail messages will change in 2009 for STN-Columbus and STN-Tokyo NEWS 10 JAN 07 WPIDS, WPINDEX, and WPIX enhanced Japanese Patent

Classification Data
NEWS 11 FEB 02 Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATEM

NEWS 12 FEB 02 GENBANK enhanced with SET PLURALS and SET SPELLING

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items

NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 15:57:42 ON 02 FEB 2009

=,

Uploading

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE Do you want to switch to the Registry File?

Choice (Y/n):

Switching to the Registry File ...

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

TOTAL

0.22

0.22

=> FILE REGISTRY

FULL ESTIMATED COST

COST IN U.S. DOLLARS SINCE FILE ENTRY SESSION

FILE 'REGISTRY' ENTERED AT 15:57:51 ON 02 FEB 2009

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STRUCTURE FILE UPDATES: 1 FEB 2009 HIGHEST RN 1099320-21-4 DICTIONARY FILE UPDATES: 1 FEB 2009 HIGHEST RN 1099320-21-4

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TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

Uploading C:\Program Files\Stnexp\Queries\10552503.str

```
7 8 9 10 11 12 14 15 18 20 21
ring nodes :
1 2 3 4 5 6
chain bonds :
1-18 4-7 5-20 6-21 7-8 8-9 9-10 9-11 10-12 10-14 10-15
ring bonds :
1-2 1-3 2-6 3-5 4-5 4-6 5-6
exact/norm bonds :
1-2 1-3 2-6 3-5 4-5 4-6 4-7 5-6 5-20 6-21 7-8 8-9 9-11 10-12 10-14
10-15
exact bonds :
1-18 9-10
isolated ring systems :
containing 1 :
```

G1:Ph,Cb,Cy,Ak

chain nodes :

G2:0, N, NH

Match level :

1:Atom 2:Atom 3:Atom 4:CLASS 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 14:CLASS 15:CLASS 18:CLASS 20:CLASS 21:CLASS

L1 STRUCTURE UPLOADED

=> D L1

L1 HAS NO ANSWERS

L1 STR

- G1 Ph,Cb,Cy,Ak
- G2 O, N, NH

Structure attributes must be viewed using STN Express query preparation.

=> S L1

SAMPLE SEARCH INITIATED 15:58:13 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 23 TO ITERATE

100.0% PROCESSED 23 ITERATIONS SEARCH TIME: 00.00.01 7 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 173 TO 747 PROJECTED ANSWERS: 7 TO 298

L2 7 SEA SSS SAM L1

=> S L1 SSS FULL FULL SEARCH INITIATED 15:58:20 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 456 TO ITERATE

100.0% PROCESSED 456 ITERATIONS 80 ANSWERS SEARCH TIME: 00.00.01

L3 80 SEA SSS FUL L1

=> FIL HCAPLUS

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY ENTRY 185.88 186.10

FULL ESTIMATED COST 185.88 1
FILE 'HCAPLUS' ENTERED AT 15:58:28 ON 02 FEB 2009

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10552503.trn 02/02/2009

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FILE COVERS 1907 - 2 Feb 2009 VOL 150 ISS 6 FILE LAST UPDATED: 1 Feb 2009 (20090201/ED)

 ${\tt HCAplus}$ now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L3 L4 8 L3 => S L4 AND PY<=2003 24034228 PY<=2003

L5 0 L4 AND PY<=2003 => FIL REGISTRY

COST IN U.S. DOLLARS FULL ESTIMATED COST SINCE FILE TOTAL ENTRY SESSION 5.70 191.80

FILE 'REGISTRY' ENTERED AT 15:59:53 ON 02 FEB 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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STRUCTURE FILE UPDATES: 1 FEB 2009 HIGHEST RN 1099320-21-4
DICTIONARY FILE UPDATES: 1 FEB 2009 HIGHEST RN 1099320-21-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=3

Uploading C:\Program Files\Stnexp\Queries\10552503X.str

```
chain nodes:
7 8 9 10 11 12 15 17 18
ring nodes:
1 2 3 4 5 6
chain bonds:
1-15 4-7 5-17 6-18 7-8 8-9 9-10 9-11 10-12
ring bonds:
1-2 1-3 2-6 3-5 4-5 4-6 5-6
exact/norm bonds:
1-2 1-3 2-6 3-5 4-5 4-6 4-7 5-6 5-17 6-18 7-8 8-9 9-11 10-12
exact bonds:
1-2 1-3 9-10
isolated ring systems:
containing 1:
```

G1:Ph,Cb,Cv,Ak

G2:0, N, NH

Match level: 1:Atom 2:Atom 3:Atom 4:CLASS 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 15:CLASS 17:CLASS 18:CLASS

L6 STRUCTURE UPLOADED

10552503

=> S L6

SAMPLE SEARCH INITIATED 16:00:14 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 23 TO ITERATE

100.0% PROCESSED 23 ITERATIONS SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

PROJECTED ITERATIONS: BATCH **COMPLETE**
PROJECTED ANSWERS: 173 TO 747
PROJECTED ANSWERS: 7 TO 298

L7 7 SEA SSS SAM L6

=> S L6 SSS FULL

FULL SEARCH INITIATED 16:00:20 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 456 TO ITERATE

100.0% PROCESSED 456 ITERATIONS 80 ANSWERS

SEARCH TIME: 00.00.01

L8 80 SEA SSS FUL L6

=>

 ${\tt Uploading \ C:\ Program \ Files \ Stnexp\ Queries \ \ 10552503B.str}$

7 ANSWERS

chain nodes:
7 8 9 10 13
ring nodes:
1 2 3 4 5 6
chain bonds:
1-13 4-7 7-8 8-9 9-10
ring bonds:
1-2 1-3 2-6 3-5 4-5 4-6 5-6

10552503.trn 02/02/2009

Page 7

exact/norm bonds:
1-2 1-3 2-6 3-5 4-5 4-6 4-7 5-6 7-8 8-9 9-10
exact bonds:
1-13
isolated ring systems:
containing 1:

G1:Ph,Cb,Cy,Ak

G2:0, N, NH

Match level: 1:Atom 2:Atom 3:Atom 4:CLASS 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS 13:CLASS

L9 STRUCTURE UPLOADED

=> D L9 L9 HAS NO ANSWERS L9 STR



G1 Ph,Cb,Cy,Ak G2 O.N.NH

Structure attributes must be viewed using STN Express query preparation.

=> S L9

SAMPLE SEARCH INITIATED 16:01:36 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 74 TO ITERATE

100.0% PROCESSED 74 ITERATIONS

9 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 95 TO 1996
PROJECTED ANSWERS: 99 TO 360

L10 9 SEA SSS SAM L9

=> S L9 SSS FULL

FULL SEARCH INITIATED 16:01:43 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1636 TO ITERATE

100.0% PROCESSED 1636 ITERATIONS

159 ANSWERS SEARCH TIME: 00.00.02

159 SEA SSS FUL L9

=> FIL HCAPLUS

SINCE FILE TOTAL COST IN U.S. DOLLARS ENTRY SESSION

FULL ESTIMATED COST 372.24 564.04

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FILE COVERS 1907 - 2 Feb 2009 VOL 150 ISS 6 FILE LAST UPDATED: 1 Feb 2009 (20090201/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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=> D HIS

(FILE 'HOME' ENTERED AT 15:57:42 ON 02 FEB 2009)

FILE 'REGISTRY' ENTERED AT 15:57:51 ON 02 FEB 2009

STRUCTURE UPLOADED

L2 7 S L1 L3 80 S L1 SSS FULL

FILE 'HCAPLUS' ENTERED AT 15:58:28 ON 02 FEB 2009

L48 S L3 L5 0 S L4 AND PY<=2003

FILE 'REGISTRY' ENTERED AT 15:59:53 ON 02 FEB 2009

L6 STRUCTURE UPLOADED 7 S L6 1.8

80 S L6 SSS FULL 1.9 STRUCTURE UPLOADED

L10 9 S L9 L11 159 S L9 SSS FULL

FILE 'HCAPLUS' ENTERED AT 16:01:47 ON 02 FEB 2009

=> S L8 L12

8 L8

=> S L11

L13 26 L11

=> S L12 AND PY<=2003

24034228 PY<=2003 L14 0 L12 AND PY<=2003

L14 0 L12 AND P1<=200

=> S L13 AND PY<=2003 24034228 PY<=2003

L15 2 L13 AND PY<=2003

=> S L13 AND P/DT 6538018 P/DT

L16 23 L13 AND P/DT

=> S L16 AND US/PC

1892403 US/PC L17 13 L16 AND US/PC

=> d 14 ibib abs hitstr tot

L4 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:771160 HCAPLUS DOCUMENT NUMBER: 149:87637

TITLE: Modified-release formulations of azabicvclo

derivatives

INVENTOR(S): Ketkar, Anant Ramesh; Kumar, Pratik; Rampal, Ashok

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 17pp.

CODEN: PIXXD2
PE: Patent

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PAT | ENT : | | KIND | | DATE | | | APPL | ICAT | ION : | DATE | | | | | | |
|--------------------------------|-------|---------------------------------|---------------------------------|---------------------------------|--|--|---|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| WO 2008075321
WO 2008075321 | | | | | | A2 20080626
A3 20080821 | | | | WO 2 | 007- | 20071221 | | | | | |
| | W: | CH,
GB,
KM,
MG,
PT, | CN,
GD,
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RO, | CO,
GE,
KP,
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CR,
GH,
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NI,
SL, | DZ,
IL,
LT,
NO,
SM, | EC,
IN,
LU,
NZ,
SV, | EE,
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LY,
OM, | EG,
JP,
MA,
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KE,
MD,
PH, | FI,
KG,
ME,
PL, |
| | RW: | IS, | IT, | LT, | LU, | LV, | CZ,
MC,
GA, | MΤ, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, |

GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,

BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
IN 2006DE02751 A 20080801 IN 2006-DE2751 20061221

PRIORITY APPLN. INFO.: IN 2006-DE2751 A 20061221 AB The present invention discloses modified-release oral dosage forms of an

azabicyclo derivative or its pharmaceutically acceptable salts, solvates, esters, enantiomers, diastereomers, N-oxides and polymorphs; and processes for the preparation thereof. The modified release formulation comprises an azabicyclo derivative, at least one rate-controlling polymer and at least one pharmaceutically acceptable excipient which provides therapeutically effective plasma levels of the active ingredient for a period of up to 24 h. Thus, tablet was prepared containing

 $(2R)-(1\alpha,5\alpha,6\alpha)-N-[3-azabicyclo[3.1.0]hexyl-6-$

(aminomethyl)-yl]-2-hydroxyl-2cyclopentyl-2-Ph acetamide hydrochloride 0.112 mg, microcryst. cellulose 175.888 mg, hydroxypropyl methylcellulose 70.0 mg, talc 1.250 mg, colloidal anhydrous silica 1.0 mg, magnesium stearate 1.750 mg, and water as needed.

T 866097-19-0 934843-97-7

RL: PKT (Pharmacokinetics); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(modified-release formulations of azabicyclo derivs.)

RN 866097-19-0 HCAPLUS

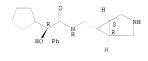
CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl)- α -cyclopentyl- α -hydroxy-, (α R)- (CA INDEX NAME)

Absolute stereochemistry.

RN 934843-97-7 HCAPLUS

CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclopentyl- α -hydroxy-, hydrochloride (1:1), (α R)- (CA INDEX NAME)

Absolute stereochemistry.



■ RC1

L4 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:464247 HCAPLUS

DOCUMENT NUMBER: 146:468545

TITLE: Pharmaceutical compositions of muscarinic receptor

antagonists

INVENTOR(S): Ray, Abhijit; Dastidar, Sunanda G.; Shirumalla,

Rajkumar: Malhotra, Shivani

PATENT ASSIGNEE(S): Ranbaxy Laboratories Ltd., India SOURCE:

PCT Int. Appl., 100pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| P. | ATENT | KIND DATE | | | | | APPL | ICAT | DATE | | | | | | | | | | |
|--------|---------------|-----------|-------------------|------|------|--------|----------------|----------------|------------------|------|----------|------------|------------|----------|-----|-----|-----|--|--|
| - | | | | | | | | | | | | | | | | | | | |
| W | WO 2007045979 | | | | | A1 200 | | | 6 WO 2006-IB2930 | | | | | 20061019 | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | ΒZ, | CA, | CH, | | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | | |
| | | GE, | GH, | GM, | GT, | HN, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KM, | KN, | | |
| | | KP, | KR, | KZ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | LY, | MA, | MD, | MG, | MK, | | |
| | | MN, | MW, | MX, | MY, | ΜZ, | NA, | NG, | NI, | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | | |
| | | RS, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | SV, | SY, | ΤJ, | TM, | TN, | TR, | TT, | | |
| | | TZ, | UA, | UG, | US, | UΖ, | VC, | VN, | ZA, | ZM, | zw | | | | | | | | |
| | RW: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, | | |
| | | IS, | ΙT, | LT, | LU, | LV, | MC, | NL, | PL, | PΤ, | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, | | |
| | | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | ΤG, | BW, | GH, | | |
| | | GM, | KΕ, | LS, | MW, | ΜZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | ΑZ, | BY, | | |
| | KG, KZ, MD, | | | | | | | | | | | | | | | | | | |
| A | A1 | | 2007 | 0426 | | AU 2 | 006- | 3056 | 20061019 | | | | | | | | | | |
| C. | CA 2626612 | | | | | | 2007 | 0426 | | CA 2 | 006- | 2626 | 20061019 | | | | | | |
| E | EP 1948164 | | | | | | 2008 | 0730 | | EP 2 | 006- | 8090 | 68 | 20061019 | | | | | |
| | R: | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | | |
| | | IS, | IT, | LI, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR | | | |
| I | | A | | 2008 | 0815 | | IN 2 | -800 | DN37 | 36 | 20080501 | | | | | | | | |
| PRIORI | . : | | | | | | IN 2005-DE2794 | | | | | A 20051019 | | | | | | | |
| | | | | | | | | WO 2006-IB2930 | | | | | W 20061019 | | | | | | |
| OTHER | SOURCE | | MARPAT 146:468545 | | | | | | | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 146:468545

Pharmaceutical compns. are provided comprising one or more muscarinic receptor antagonists (MRA), and at least one addnl. active ingredients selected from one or more β2-agonists, p38 MAP kinase inhibitors, PDE-IV inhibitors, corticosteroids, etc., or a mixture thereof and optionally one or more pharmaceutically acceptable carriers, excipients or diluents. In addition, methods of treating autoimmune, inflammatory or allergic diseases or disorders are provided. For example, a synergistic effect was observed with the combination of muscarinic antagonist (2R)-(1a,5a,6a)-N-[3-azabicyclo[3.1.0]hexyl-6-(aminomethyl)-yl]-2-hydroxy-2-cyclopentyl 2-phenylacetamide hydrochloride (Compound 66) with PDE-IV inhibitor roflumilast for relaxing carbachol-precontracted guinea pig isolated trachea.

IT 646036-03-5 866097-19-0 866186-71-2 872994-89-3 893426-86-3 893426-91-0 893426-98-7 893427-06-0 893427-12-8 893427-18-4 934843-97-7 934843-98-8 934844-00-5 934844-01-6 934844-02-7 934844-03-8 934844-04-9 934844-05-0 934844-06-1 934844-07-2 934844-10-7 934844-11-8 934844-12-9 934844-13-0 934884-14-1 934844-15-2 934986-69-3 934986-70-6

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses) (compns. comprising muscarinic antagonists in combination with other agents for treatment of autoimmune, inflammatory or allergic disorders)

RN 646036-03-5 HCAPLUS CN Benzeneacetamide, N-(3-azabicyclo[3.1.0]hex-6-ylmethyl)- α cyclopentyl- α -hydroxy-, (1 α ,5 α ,6 α) (CA INDEX

Relative stereochemistry.

NAME)

- RN 866097-19-0 HCAPLUS
- CN Benzeneacetamide, N-[(1a,5a,6a)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-a-cyclopentyl-a-hydroxy-, (aR)- (CA INDEX NAME)

Absolute stereochemistry.

- RN 866186-71-2 HCAPLUS
- CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclopentyl- α -hydroxy-, (α S)- (CA INDEX NAME)

Absolute stereochemistry.

- RN 872994-89-3 HCAPLUS
- CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclopentyl- α -hydroxy-, hydrochloride (1:1) (CA INDEX NAME)

Relative stereochemistry.

● HC1

- RN 893426-86-3 HCAPLUS
- CN Benzeneacetamide, N-[[(1 α ,5 α ,6 α)-3-azabicyclo[3.1.0]hex-6-yl]methyl]- α -hydroxy-N-methyl- α -phenyl- (CA INDEX NAME)

Relative stereochemistry.

- RN 893426-91-0 HCAPLUS
- CN Benzeneacetamide, N= $\{(1\alpha,5\alpha,6\alpha)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-\alpha-(3,3-difluorocyclopentyl)-\alpha-hydroxy-, (aR)-(CA INDEX NAME)$

Absolute stereochemistry.

- RN 893426-98-7 HCAPLUS
- CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy-N-methyl- α -phenyl-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 893427-06-0 HCAPLUS
CN Benzeneacetamide, N-[(1\alpha, 5\alpha, 6\alpha)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-\alpha-hydroxy-\alpha-phenyl- (CA INDEX NAME)

Relative stereochemistry.

RN 893427-12-8 HCAPLUS

CN Benzeneacetamide, N-[(l α ,5 α ,6 α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclohexyl- α -hydroxy- (CA INDEX NAME)

Relative stereochemistry.

RN 893427-18-4 HCAPLUS

CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-4-fluoro- α -hydroxy- α -phenyl- (CA INDEX NAME)

- RN 934843-97-7 HCAPLUS
- CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclopentyl- α -hydroxy-, hydrochloride (1:1), (α R)- (CA INDEX NAME)

Absolute stereochemistry.

● HCl

- RN 934843-98-8 HCAPLUS
- CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl)- α -cyclopentyl- α -hydroxy-, hydrochloride (1:1), (α S)- (CA INDEX NAME)

Absolute stereochemistry.

● HC1

- RN 934844-00-5 HCAPLUS
- CN Benzeneacetamide, N-[(l α ,5 α ,6 α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclobutyl- α -hydroxy- (CA INDEX NAME)

RN 934844-01-6 HCAPLUS

CN Benzeneacetamide, N- $\{(1\alpha, 5\alpha, 6\alpha)$ -3-azabicyclo $\{3.1.0\}$ hex-6-ylmethy $\}$ - α -cyclobuty $\}$ - α -hydroxy-, (2R, 3R)-2, 3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM

CRN 934844-00-5 CMF C18 H24 N2 O2

Relative stereochemistry.

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 934844-02-7 HCAPLUS

CN Benzeneacetamide, N-[(1 α ,5 α ,6 α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclopentyl- α -hydroxy-N-methyl- (CA INDEX NAME)

RN 934844-03-8 HCAPLUS

CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy-N-methyl- α -phenyl-, (2R, 3R)-2, 3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM 1

CRN 893426-86-3 CMF C21 H24 N2 O2

Relative stereochemistry.

CM

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 934844-04-9 HCAPLUS

CN Benzeneacetamide, N-[(l α ,5 α ,6 α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy- α -(1-methylethyl)- (CA INDEX NAME)

- RN 934844-05-0 HCAPLUS
- CN Benzeneacetamide, N-[$(1\alpha, 5\alpha, 6\alpha)$ -3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy- α -(1-methylethyl)-, hydrochloride (1:1) (CA INDEX NAME)

Relative stereochemistry.

● HC1

- RN 934844-06-1 HCAPLUS
- CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclopentyl- α -hydroxy-N-methyl-, (α R)- (CA INDEX NAME)

Absolute stereochemistry.

- RN 934844-07-2 HCAPLUS
- CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclopentyl- α -hydroxy-N-methyl-, hydrochloride (1:1), (α R)- (CA INDEX NAME)

Absolute stereochemistry.

HC1

RN 934844-10-7 HCAPLUS
CN Benzeneacetamide, N-[(1α, 5α, 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-α-hydroxy-α-methyl- (CA INDEX NAME)

Relative stereochemistry.

RN 934844-11-8 HCAPLUS

CN Benzeneacetamide, N-[(1 α ,5 α ,6 α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy-N-methyl- α -(1-methylethyl)-, (α R)-(CA INDEX NAME)

Absolute stereochemistry.

RN 934844-12-9 HCAPLUS

CN Benzeneacetamide, N-[$(1\alpha, 5\alpha, 6\alpha)$ -3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy-3-methyl- α -phenyl- (CA INDEX NAME)

- RN 934844-13-0 HCAPLUS
- CN Benzeneacetamide, N-[$(1\alpha, 5\alpha, 6\alpha)$ -3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy-4-methyl- α -phenyl- (CA INDEX NAME)

Relative stereochemistry.

- RN 934844-14-1 HCAPLUS
- CN Benzeneacetamide, N-[(1α,5α,6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-4-fluoro-α-hydroxy-N-methyl-α-phenyl-, (αS)-(CA INDEX NAME)

Absolute stereochemistry.

- RN 934844-15-2 HCAPLUS
- CN Benzeneacetamide, N-[(1α,5α,6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-α-hydroxy-N,4-dimethyl-α-phenyl-, (αR)- (CA INDEX NAME)

Absolute stereochemistry.

RN 934986-69-3 HCAPLUS

CN Benzeneacetamide, N-[$(1\alpha, 5\alpha, 6\alpha)$ -3-azabicyclo[3.1.0]hex-6-ylmethyl]- $(\alpha, 3)$ -diffluorocyclopentyl)- $(\alpha$ -hydroxy-,(2R, 3R)-2, 3-dihydroxybutanedioate (1:1) (CA INDEX NAME)

CM

CRN 934986-68-2 CMF C19 H24 F2 N2 O2

Relative stereochemistry.

CM :

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 934986-70-6 HCAPLUS

CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -(3-fluorocyclopentyl)- α -hydroxy- (CA INDEX NAME)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1174148 HCAPLUS DOCUMENT NUMBER: 145:471412

TITLE: Preparation of 3,6-disubstituted

TITLE: Preparation of 3,6-disubstituted azabicyclo[3.1.0]hexane derivatives as muscarinic

receptor antagonists for use against respiratory, urinary and gastrointestinal diseases

INVENTOR(S): Salman, Mohammad; Kumar, Naresh; Kaur, Kirandeep; Aeron, Shelly; Sarma, Pakala Kumara Savithru; Dharmarajan, Sankaranarayanan; Mehta, Anita; Chugh, Anita

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 79pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

| P | ATEN | T N | ю. | | | KIND DATE | | | | | | ICAT | | DATE | | | | | | |
|----------------|------------------------|------|-----|-----|-----|-------------|-----|------|-------|-----|------|-------|-------|----------|------------|----------|------|-----|--|--|
| W | WO 2006117754 | | | | | | _ | 2006 | 1109 | | | | | | | 20060501 | | | | |
| | M | : | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | | |
| | | | CN, | co, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | | |
| | | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KM, | KN, | KP, | KR, | | |
| | | | KZ, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | LY, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | | |
| | | | MZ, | NA, | NG, | NI, | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | | |
| | | | SG, | SK, | SL, | SM, | SY, | TJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | | |
| | VN, YU, ZA | | ZA, | ZM, | ZW | | | | | | | | | | | | | | | |
| | R | W: | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | | |
| | | | IS, | IT, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, | BJ, | | |
| | | | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | TG, | BW, | GH, | | |
| | | | GM, | KE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | AZ, | BY, | | |
| | | | KG, | KZ, | MD, | RU, | TJ, | TM | | | | | | | | | | | | |
| E | EP 1888525 | | | | | A1 20080220 | | | | | EP 2 | 006- | 7281 | 20060501 | | | | | | |
| | R | : | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | | |
| | | | IS, | IT, | LI, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR | | | |
| IN 2007DN09221 | | | | | | A | | 2008 | 0118 | | IN 2 | 007- | DN92 | 20071129 | | | | | | |
| US 20080319043 | | | | | | A1 20081225 | | | | | US 2 | 008- | 9135 | 20080730 | | | | | | |
| PRIORI | PRIORITY APPLN. INFO.: | | | | | | | | | | IN 2 | 005-1 | DE18 | | A 20050503 | | | | | |
| | | | | | | | | | | | IN 2 | 006- | DE16: | 81 | | A 2 | 0060 | 328 | | |
| | | | | | | | | | | | WO 2 | 006- | IB51: | 368 | 1 | n 2 | 0060 | 501 | | |
| OTHER | SOUR | CE (| S): | | | MARI | PAT | 145: | 47143 | 12 | | | | | | | | | | |

Page 23

10552503.trn 02/02/2009

$$R^2$$
 W $CO-X-Q$ R^2n R^4 I

AB The present invention generally relates to azabicyclo[3.1.0]hexane derivs. (shown as I; variables defined below; e.g. N-(3-benzyl-3-azabicyclo[3.1.0]hex-6-yl)-2-hydroxy-2-phenyl-2-(2-thienyl)acetamide (1)] as muscarinic receptor antagonists, which are useful, among other uses, for the treatment of various diseases of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. The invention also relates to the process for the preparation of disclosed compds., pharmaceutical compns. containing the disclosed

compds., and the methods for treating diseases mediated through muscarinic receptors. For I: R1 is H or alkyl; R2 is straight or branched alkyl alkenyl, alkynyl, aryl, cycloalkyl, cycloalkylalkyl or heteroaryl (un) substituted with ≥1 alkyl, hydroxy or halogen. R3 is aryl or heteroaryl (un)substituted with ≥1 alkyl, hydroxy or halogen; W = -(CH2)i; Q = -(CH2)j; X is O or -N(R5)-; R4 is H, straight or branched alkyl, straight or branched alkenyl, aralkyl or heteroarylalkyl wherein the said aralkyl or heteroarylalkyl is further substituted with alkyl, -NH2 or alkoxycarbonylamino; R5 is H or alkyl; Rw is H or Me; and n, i, j = 0-2. Results of radioligand binding assays for M2 and M3 muscarinic receptors are reported for many examples of I. Methods of preparation are claimed and prepns. and/or characterization data for .apprx.120 examples of I are included. For example, 1 was prepared from hydroxy(phenyl)(thien-2-yl)acetic acid and 3-benzyl-3-azabicyclo[3.1.0]hexan-6-amine in DMF using hydroxybenzotriazole, N-methylmorpholine and 1-ethvl-3-(3-dimethvlaminopropvl)carbodiimide. 913982-66-8P, N-[(3-Azabicvclo[3.1.0]hex-6-vl)methvl]-2-

cyclopenty1-2-hydroxy-2-(2-thieny1)acetamide tartrate
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
preparation); THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of 3,6-disubstituted azabicyclo[3.1.0]hexane
derive. as muscarinic receptor antagonists for use against respiratory,
urinary and qastrointestinal diseases)

RN 913982-66-8 HCAPLUS
CN 2-Thiopheneacetamide, N-(3-azabicyclo[3.1.0]hex-6-ylmethyl)-α-cyclopentyl-α-hydroxy-, (2R, 3R)-2, 3-dihydroxybutanedioate (salt) (9C1) (CA INDEX NAME)

CM 1

CRN 913982-65-7 CMF C17 H24 N2 O2 S

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

913981-79-0P, N-[(3-Azabicvclo[3.1.0]hex-6-vl)methvl]-2-hvdroxv-2,2-bis(3-methylphenyl)acetamide 913981-81-4P. N-[(3-Azabicyclo[3.1.0]hex-6-y1)methy1]-2-hydroxy-2-pheny1-2-(2thienyl)acetamide 913981-82-5P, (3-Azabicyclo[3.1.0]hex-6-v1)methyl hydroxybis(3-methylphenyl)acetate 913981-84-7P, N-[(3-Azabicyclo[3.1.0]hex-6-y1)methy1]-2-hydroxy-Nmethyl-2,2-bis(3-methylphenyl)acetamide 913981-96-1P, (3-Azabicyclo[3.1.0]hex-6-yl)methyl hydroxybis(4-methylphenyl)acetate 913981-97-2P, N-[(3-Azabicyclo[3.1.0]hex-6-y1)methy1]-2,2-bis(4fluorophenyl)-2-hydroxy-N-methylacetamide 913981-99-4P, N-[(3-Azabicyclo[3.1.0]hex-6-yl)methyl]-2-hydroxy-N-methyl-2,2-bis(4methylphenyl)acetamide 913982-01-1P, (2-Methyl-3-azabicyclo[3.1.0]hex-6-vl)methyl cvclohexvl(hvdroxv)phenvlacetate 913982-48-6P, (3-Azabicyclo(3.1.0)hex-6-vl)methyl 2-hydroxy-2-phenylhex-4-enoate RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of 3,6-disubstituted azabicyclo[3.1.0]hexane derivs. as muscarinic receptor antagonists for use against respiratory, urinary and gastrointestinal diseases)

RN 913981-79-0 HCAPLUS

CN Benzeneacetamide, N-(3-azabicyclo[3.1.0]hex-6-ylmethyl)-α-hydroxy-3-methyl-α-(3-methylphenyl)- (CA INDEX NAME)

10552503.trn 02/02/2009

RN 913981-81-4 HCAPLUS

CN 2-Thiopheneacetamide, N-(3-azabicyclo[3.1.0]hex-6-ylmethyl)-α-hydroxy-α-phenyl- (CA INDEX NAME)

RN 913981-82-5 HCAPLUS

CN Benzeneacetic acid, α -hydroxy-3-methyl- α -(3-methylphenyl)-, 3-azabicyclo[3.1.0]hex-6-ylmethyl ester (CA INDEX NAME)

RN 913981-84-7 HCAPLUS

CN Benzeneacetamide, N-(3-azabicyclo[3.1.0]hex-6-ylmethyl)- α -hydroxy-N,3-dimethyl- α -(3-methylphenyl)- (CA INDEX NAME)

RN 913981-96-1 HCAPLUS

CN Benzeneacetic acid, α -hydroxy-4-methyl- α -(4-methylphenyl)-, 3-azabicyclo[3.1.0]hex-6-ylmethyl ester (CA INDEX NAME)

- RN 913981-97-2 HCAPLUS
- CN Benzeneacetamide, N-(3-azabicyclo[3.1.0]hex-6-ylmethyl)-4-fluoro-α-(4-fluorophenyl)-α-hydroxy-N-methyl- (CA INDEX NAME)

- RN 913981-99-4 HCAPLUS
- CN Benzeneacetamide, N-(3-azabicyclo[3.1.0]hex-6-ylmethyl)- α -hydroxy-N,4-dimethyl- α -(4-methylphenyl)- (CA INDEX NAME)

- RN 913982-01-1 HCAPLUS
- CN Benzeneacetic acid, α-cyclohexyl-α-hydroxy-, (2-methyl-3-azabicyclo[3.1.0]hex-6-yl)methyl ester (CA INDEX NAME)

Page 27

RN 913982-48-6 HCAPLUS

Benzeneacetic acid, a-2-buten-1-yl-a-hydroxy-, CN 3-azabicyclo[3.1.0]hex-6-ylmethyl ester (CA INDEX NAME)

- 913982-17-9, N-[(3-Azabicvclo[3.1.0]hex-6-v1)methvl]-2-cvclohexvl-2-hydroxy-2-phenylacetamide
 - RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of 3,6-disubstituted azabicyclo[3.1.0]hexane derivs. as muscarinic receptor antagonists for use against respiratory, urinary
- and gastrointestinal diseases)
- RN 913982-17-9 HCAPLUS
- CN Benzeneacetamide, N-(3-azabicyclo[3.1.0]hex-6-ylmethyl)- α -cyclohexylα-hydroxy- (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2006:605804 HCAPLUS

DOCUMENT NUMBER: 145:83209

TITLE: Preparation of azabicvclo[3.1.0]hexanes-acid addition

salts as muscarinic receptor antagonists

INVENTOR(S): Salman, Mohammad; Kumar, Naresh; Yadav, Gyan Chand; Sarma, Pakala Kumara Savithru

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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WO 2006064304
                       A1 20060622 WO 2004-IB4142 20041215
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
            LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
            NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
            SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
            CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM,
            KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG,
            KZ, MD, RU, TJ, TM
    EP 1828126
                            20070905 EP 2004-806353
                        A1
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            IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
    IN 2007DN04735
                        A 20070817 IN 2007-DN4735
PRIORITY APPLN. INFO .:
                                          WO 2004-IB4142
                                                             W 20041215
                       CASREACT 145:83209; MARPAT 145:83209
OTHER SOURCE(S):
GI
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Title compds. I [R1 = optionally substituted phenyl; R2 = optionally AB substituted alkyl with halo, optionally substituted Ph with halo, optionally substituted cycloalkyl with halo; X = -NH-, -O-, NMe; A = organic acid selected from acetic acid, succinic acid, maleic acid, etc., inorg. acid selected from hydrochloric acid, hydrobromic acid, phosphoric acid, etc. with the proviso that A can not be tartaric acid when R1 and R2 are Ph and X is -NMel and pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, prodrugs, polymorphs and metabolites thereof were prepared For example, a mixture of $(2R)-N-[(1\alpha,5\alpha,6\alpha)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-2-$ (3,3-difluorocyclopentyl)-2-hydroxy-2-phenylacetamide (II) and L-tartaric acid was stirred at room temperature for 4 h to give L-tartaric acid salt of compound II. In muscarinic receptor binding assays, the Ki values of 34 examples were in the range of from about 0.01 to about 2 nM for rat M3 receptors, from about 0.01 to about about 25 nM for rat M2 receptors. Compds. I are claimed useful for the treatment of urinary incontinence, bronchial asthma, etc.

Ι

IT 893426-84-1P 893426-87-4P 893426-89-5P 893426-89-6P 893426-90-PP 893426-92-1P 893426-94-3P 893426-95-4P 893427-06-5P 893427-01-5P 893427-00-3P 893427-00-7P 893427-01-5P 893427-05-9P 893427-07-1P 893427-09-3P 893427-10-5P 893427-11-7P 893427-13-9P 893427-11-7P 893427-13-9P 893427-11-7P

893427-21-9P 893427-23-1P 893427-25-3P 893427-27-5P 893427-29-7P 893427-31-1P 893427-32-2P 893427-34-4P 893427-36-6P

893427-38-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of azabicyclo[3.1.0]hexanes-acid addition salts as muscarinic receptor antagonists for treatment of urinary incontinence and bronchial asthma)

- RN 893426-84-1 HCAPLUS
- CN Benzeneacetic acid, α-hydroxy-α-phenyl-,

 $(1\alpha, 5\alpha, 6\alpha)$ -3-azabicyclo[3.1.0]hex-6-ylmethyl ester,

hydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

- RN 893426-87-4 HCAPLUS
- CN Butanedioic acid, compd. with rel-N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-α-hydroxy-N-methyl-α-phenylbenzeneacetamide (1:1) (9C1) (CA INDEX NAME)
 - CM 1
 - CRN 893426-86-3
 - CMF C21 H24 N2 O2

- CM 2
- CRN 110-15-6
- CMF C4 H6 O4

HO2C-CH2-CH2-CO2H

RN 893426-88-5 HCAPLUS

CN Benzeneacetamide, N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-α-hydroxy-N-methyl-α-phenyl-, rel-, (2Z)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 893426-86-3

CMF C21 H24 N2 O2

Relative stereochemistry.

CM

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 893426-89-6 HCAPLUS

CN Benzeneacetamide, N-[(lR,58)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy-N-methyl- α -phenyl-, rel-, monoacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 893426-86-3

CMF C21 H24 N2 O2

CM 2

CRN 64-19-7 CMF C2 H4 O2

CN

RN 893426-90-9 HCAPLUS

Benzeneacetamide, N= [(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy-N-methyl- α -phenyl-, rel-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM

CRN 893426-86-3 CMF C21 H24 N2 O2

Relative stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 893426-92-1 HCAPLUS

CN Benzeneacetamide, N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-α-(3,3-difluorocyclopentyl)-α-hydroxy-,

(2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 893426-91-0 CMF C19 H24 F2 N2 O2

Absolute stereochemistry.

CM :

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 893426-94-3 HCAPLUS

CN Benzeneacetamide, N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -(3,3-difluorocyclopentyl)- α -hydroxy-, ethanedioate (1:1) (salt) (901) (CA INDEX NAME)

CM 1

CRN 893426-91-0

CMF C19 H24 F2 N2 O2

Absolute stereochemistry.

CM 2

CRN 144-62-7 CMF C2 H2 O4

0 0 || || но-с-с-он

RN 893426-95-4 HCAPLUS

CN Benzeneacetamide, N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-α-(3,3-difluorocyclopentyl)-α-hydroxy-, 2-hydroxy-1,2,3-propanetricarboxylate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 893426-91-0 CMF C19 H24 F2 N2 O2

Absolute stereochemistry.

CM 2

CRN 77-92-9 CMF C6 H8 O7

 $\begin{array}{c} {\rm CO_2H} \\ | \\ {\rm HO_2C-CH_2-C-CH_2-CO_2H} \end{array}$

OH RN 893426-96-5 HCAPLUS

Propanedioic acid, compd. with N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-a-(3,3-difluorocyclopentyl)-a-hydroxybenzeneacetamide (1:1) (9C1) (CA INDEX NAME)

CM 1

CN

CRN 893426-91-0 CMF C19 H24 F2 N2 O2

Absolute stereochemistry.

CM 2

CRN 141-82-2 CMF C3 H4 O4

HO2C-CH2-CO2H

RN 893426-97-6 HCAPLUS

CN Hexanedioic acid, compd. with N-[(1R,58)-3-azabicyclo[3.1.0]hex-6-yimethyl]-α-(3,3-difluorocyclopentyl)-α-hydroxybenzeneacetamide (1:1) (9C1) (CA INDEX NAME)

CM

CRN 893426-91-0 CMF C19 H24 F2 N2 O2

Absolute stereochemistry.

CM 2

CRN 124-04-9 CMF C6 H10 O4

HO2C- (CH2) 4-CO2H

RN 893426-98-7 HCAPLUS

CN Benzeneacetamide, N-[$(1\alpha,5\alpha,6\alpha)$ -3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy-N-methyl- α -phenyl-, hydrochloride (1:1) (CA INDEX NAME)

Relative stereochemistry.

● HC1

RN 893427-00-4 HCAPLUS

CN Ascorbic acid, compd. with rel-(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl α-hydroxy-α-phenylbenzeneacetate (1:1) (9CI) (CA INDEX NAME)

CM

CRN 893426-99-8 CMF C20 H21 N O3

Relative stereochemistry.

CM 2

CRN 62624-30-0 CMF C6 H8 O6

Relative stereochemistry.

RN 893427-01-5 HCAPLUS

CN 1,3-Cyclopentanedicarboxylic acid, 1,2,2-trimethyl-, (1R,3S)-rel-, compd. with rel-(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl a-hydroxy-a-phenylbenzeneacetate (1:1) (9CI) (CA INDEX NAME)

CRN 893426-99-8 CMF C20 H21 N 03

Relative stereochemistry.

CM 2

CRN 5394-83-2 CMF C10 H16 O4

Relative stereochemistry.

RN 893427-02-6 HCAPLUS CN 3-Pvridinecarboxvlic

3-Pyridinecarboxylic acid, compd. with rel-(1R,58)-3-azabicyclo(3.1.0)hex-6-ylmethyl a-hydroxy-a-phenylbenzeneacetate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 893426-99-8 CMF C20 H21 N O3

Relative stereochemistry.

CM 2

CRN 59-67-6

CMF C6 H5 N O2

RN 893427-03-7 HCAPLUS

CN Butanoic acid, compd. with rel-(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl α-hydroxy-α-phenylbenzeneacetate (1:1) (9CI) (CA INDEX NAME)

CM

CRN 893426-99-8 CMF C20 H21 N O3

Relative stereochemistry.

CM

CRN 107-92-6 CMF C4 H8 O2

RN 893427-04-8 HCAPLUS

CN Benzeneacetic acid, α-hydroxy-α-phenyl-, rel-(1α, 5α, 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl ester, 2-hydroxypropanoate (1:1) (9C1) (CA INDEX NAME)

CM 1

CRN 893426-99-8 CMF C20 H21 N O3

Relative stereochemistry.

CRN 50-21-5 CMF C3 H6 O3

ОН

Me-CH-CO2H

RN 893427-05-9 HCAPLUS

CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy- α -phenyl-, monohydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HC1

RN 893427-07-1 HCAPLUS

CN D-Glucuronic acid, compd. with rel-N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-α-hydroxy-α-phenylbenzeneacetamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 893427-06-0 CMF C20 H22 N2 O2

Relative stereochemistry.

CRN 6556-12-3 CMF C6 H10 07

Absolute stereochemistry.

RN 893427-09-3 HCAPLUS

CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy- α -phenyl-, monohydrobromide (9CI) (CA INDEX NAME)

Relative stereochemistry.

• HBr

RN 893427-10-6 HCAPLUS

CN Benzeneacetamide, N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy- α -phenyl-, rel-, phosphate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 893427-06-0 CMF C20 H22 N2 O2

Relative stereochemistry.

10552503.trn 02/02/2009

CRN 7664-38-2 CMF H3 O4 P

RN 893427-11-7 HCAPLUS

Benzeneacetamide, N-[$(1\alpha, 5\alpha, 6\alpha)$ -3-azabicyclo[3.1.0]hex-6-ylmethyll- α -cyclohexyl- α -hydroxy-, monohydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 893427-13-9 HCAPLUS
CN Benzeneacetamide, N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-\alpha-cyclohexyl-\alpha-hydroxy-, rel-, (2Z)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 893427-12-8 CMF C20 H28 N2 O2

Relative stereochemistry.

10552503.trn 02/02/2009

CRN 110-16-7 CMF C4 H4 O4

Double bond geometry as shown.

RN 893427-16-2 HCAPLUS

CN Benzeneacetamide, N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclohexyl- α -hydroxy-, rel-, sulfate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 893427-12-8

CMF C20 H28 N2 O2

Relative stereochemistry.

CM 2

CRN 7664-93-9 CMF H2 O4 S

CMF HZ 04 S

RN 893427-19-5 HCAPLUS

CN Benzeneacetamide, N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-4-fluoroα-hydroxy-α-phenyl-, rel-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 893427-18-4 CMF C20 H21 F N2 O2

Relative stereochemistry.

CM 2

CRN 87-69-4 CMF C4 H6 O6

Absolute stereochemistry.

RN 893427-21-9 HCAPLUS

CN Butanedioic acid, compd. with rel-N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-4-fluoro-α-hydroxy-α-phenylbenzeneacetamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 893427-18-4 CMF C20 H21 F N2 O2

Relative stereochemistry.

CRN 110-15-6 CMF C4 H6 O4

но2С-Сн2-Сн2-Со2Н

893427-23-1 HCAPLUS RN CN

Benzeneacetamide, N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-4-fluoro- α -hydroxy- α -phenyl-, rel-, (2Z)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM

CRN 893427-18-4

CMF C20 H21 F N2 O2

Relative stereochemistry.

CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

10552503

RN 893427-25-3 HCAPLUS

CN Benzeneacetic acid, α-(1-ethylpropyl)-α-hydroxy-, (1α,5α,6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl ester, hydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

HC1.

RN 893427-27-5 HCAPLUS

CN Benzeneacetic acid, α -(1-ethylpropyl)- α -hydroxy-, (1R,58)-3-azabicyclo[3.1.0]hex-6-ylmethyl ester, rel-, (2Z)-2-butenedioate (1:1) (salt) (9C1) (CA INDEX NAME)

CM

CRN 893427-26-4 CMF C19 H27 N O3

Relative stereochemistry.

CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

RN 893427-29-7 HCAPLUS

CN Benzeneacetic acid, α -(1-ethylpropyl)- α -hydroxy-,

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Page 45

(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl ester, rel-, nitrate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 893427-26-4

CMF C19 H27 N O3

Relative stereochemistry.

CM 2

CRN 7697-37-2 CMF H N O3

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RN 893427-31-1 HCAPLUS

CN Boric acid (H3BO3), compd. with rel-(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl α -(1-ethylpropyl)- α -hydroxybenzeneacetate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 893427-26-4 CMF C19 H27 N O3

Relative stereochemistry.

CM 2

CRN 10043-35-3

CMF B H3 O3

RN 893427-32-2 HCAPLUS

CN Benzeneacetamide, N-[(1R,5S)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-4-fluoro-α-hydroxy-α-phenyl-, rel-, monoperchlorate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 893427-18-4 CMF C20 H21 F N2 O2

Relative stereochemistry.

CM 2

CRN 7601-90-3 CMF C1 H O4

RN 893427-34-4 HCAPLUS

CN Benzeneacetic acid, α -hydroxy- α -(1-methylethyl)-, $(1\alpha, 5\alpha, 6\alpha)$ -3-azabicyclo[3.1.0]hex-6-ylmethyl ester, hydrochloride (9CI) (CA INDEX NAME)

Relative stereochemistry.

HC1

RN 893427-36-6 HCAPLUS

CN Butanedioic acid, compd. with rel-(1R,5S)-3-azabicyclo[3.1.0]hex-6-yimethyl a-hydroxy-a-(1-methylethyl)benzeneacetate (1:1) (9CI) (CA INDEX NAME)

CM :

CRN 893427-35-5 CMF C17 H23 N O3

Relative stereochemistry.

CM 2

CRN 110-15-6 CMF C4 H6 O4

HO2C-CH2-CH2-CO2H

CN

RN 893427-38-8 HCAPLUS

Benzeneacetic acid, α -hydroxy- α -(1-methylethyl)-, $(1\alpha, 5\alpha, 6\alpha)$ -3-azabicyclo[3.1.0]hex-6-ylmethyl ester, hydrobromide (9CI) (CA INDEX NAME)

Relative stereochemistry.

HBr

IT 893426-91-0 893426-99-8 893427-06-0 893427-12-8 893427-18-4 893427-35-5 RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of azabicyclo[3.1.0]hexanes-acid addition salts as muscarinic receptor antagonists for treatment of urinary incontinence and bronchial asthma)

RN 893426-91-0 HCAPLUS

CN Benzeneacetamide, N-[(1 α ,5 α ,6 α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -(3,3-difluorocyclopentyl)- α -hydroxy-, (α R)-(CA INDEX NAME)

Absolute stereochemistry.

RN 893426-99-8 HCAPLUS

CN Benzeneacetic acid, α -hydroxy- α -phenyl-, (1 α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 893427-06-0 HCAPLUS

CN Benzeneacetamide, N-[(l α ,5 α ,6 α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy- α -phenyl- (CA INDEX NAME)

Relative stereochemistry.

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RN 893427-12-8 HCAPLUS

CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclohexyl- α -hydroxy- (CA INDEX NAME)

Relative stereochemistry.

RN 893427-18-4 HCAPLUS

CN Benzeneacetamide, N-[(1 α ,5 α ,6 α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-4-fluoro- α -hydroxy- α -phenyl- (CA INDEX NAME)

Relative stereochemistry.

RN 893427-35-5 HCAPLUS

CN Benzeneacetic acid, α -hydroxy- α -(1-methylethyl)-, $(1\alpha, 5\alpha, 6\alpha)$ -3-azabicyclo[3.1.0]hex-6-ylmethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

10552503.trn 02/02/2009

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:318950 HCAPLUS

DOCUMENT NUMBER: 144:369923

TITLE: 3-Azabicyclo[3.1.0] hexane derivatives as muscarinic

receptor antagonists and their preparation,

pharmaceutical compositions, and use for treatment of prophylaxis of of respiratory, urinary, or

gastrointestinal diseases

INVENTOR(S): Mehta, Anita; Salman, Mohammad; Sarma, Pakala Kumara Savithru; Aeron, Shelley; Chugh, Anita; Gupta, Suman

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 54 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. ----A2 20060406 WO 2005-IB2838 A3 20060518 WO 2006035282 A2 WO 2006035282 A3 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM A2 20070620 EP 2005-789767 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR IN 2007-DN1636 20070228 IN 2007DN01636 A 20070803 IN 2004-DE1849 A 20040927 WO 2005-IB2838 W 20050926 PRIORITY APPLN. INFO.:

OTHER SOURCE(S): CASREACT 144:369923; MARPAT 144:369923

GI

AB This invention generally relates to muscarinic receptor antagonists of formula I, which are useful, among other uses, for the treatment of various diseases of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. The invention also relates to the process for the preparation of disclosed compds., pharmaceutical compns. containing
the disclosed compds., and the methods for treating diseases mediated

through muscarinic receptors. Compds. of formula \bar{I} wherein R1 is H, C1-6 alkyl, C2-7 alkenyl, C2-7 alkynyl, cycloalkyl, (un)substituted amino, or OH and derivs.; R2 is carboxy, SO2R6, CO2R7, NH2 and derivs., or CONH2 and derivs., etc.; R3 is alkyl, alkenyl, alkynyl, cycloalkyl, (hetero)aryl, aralkyl, or heterocyclyl(alkyl); R4 and R5 are independently H, C1-6 alkyl, C2-7 alkenyl, or C2-7 alkynyl; X is O, NH and derivs., C1-6 alkyl, C2-7 alkenyl, C2-7 alkynyl, aralkyl, or aryl; Ar is (hetero)aryl or heterocyclyl; and their stereoisomers, polymorphs, pharmaceutically acceptable salts, and solvates thereof and methods for preparation are claimed. Example compound II was prepared by sulfonvlation of $N-(1\alpha, 5\alpha, 6\alpha)-(3-azabicyclo[3,1,0]hex-6-vlmethyl)-2$ cyclopenty1-2-hydroxy-2-Ph acetamide with p-nitrophenylsulfonyl chloride. All the invention compds. were evaluated for their binding affinity towards muscarinic receptors. From the assay, it was determined that most of the invention compds. exhibited Ki values for M2 and M3 muscarinic receptors in the range of about 1000 nM to about 7.8 nM and 1000 nM to about 0.5 nM, resp.

IT 882168-34-5P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate, preparation of azabicyclohexane derivs. as muscarinic receptor antagonists useful for treatment of prophylaxis of of respiratory, urinary, or gastrointestinal diseases)

RN 882168-34-5 HCAPLUS CN Benzeneacetamide, N-[(1)

Benzeneacetamide, N-[$(1\alpha, 5\alpha, 6\beta)$ -3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclopentyl- α -hydroxy- (9CI) (CA INDEX NAME)

10552503.trn 02/02/2009 Page 52

Relative stereochemistry.

REFERENCE COUNT: 4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN 2006:30422 HCAPLUS

ACCESSION NUMBER:

DOCUMENT NUMBER: 144:114451

TITLE: Solid oral dosage forms of azabicyclo derivatives INVENTOR(S): Rao, Korlapati Venkateswara; Karatgi, Pradeep Jai Rao;

Murthy, Avanampudi Sri Rama

Ranbaxy Laboratories Limited, India PATENT ASSIGNEE(S): PCT Int. Appl., 16 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PA | TENT : | NO. | | | KIN | D | DATE | | | APPL | ICAT | ION I | . OV | | D | ATE | |
|---------|-------------|------|------|-----|-----|-----|------|------|-----|------|-------|-------|------|-----|-----|------|-----|
| | | | | | | - | | | | | | | | | | | |
| WO | 2006 | 0035 | 87 | | A2 | | 2006 | 0112 | | WO 2 | 005- | IB52 | 104 | | 2 | 0050 | 524 |
| WO | 2006 | 0035 | 87 | | A3 | | 2006 | 0914 | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KM, | KP, | KR, | KZ, |
| | | LC, | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, |
| | NG, NI, NO, | | | | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, |
| | SL, SM, SY, | | | | ΤJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, |
| | ZA, ZM, ZW | | | | | | | | | | | | | | | | |
| | RW: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FΙ, | FR, | GB, | GR, | HU, | ΙE, |
| | | IS, | ΙT, | LT, | LU, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, | CF, |
| | | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | TG, | BW, | GH, | GM, |
| | | KE, | LS, | MW, | ΜZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | ΑZ, | BY, | KG, |
| | | KZ, | MD, | | ΤJ, | | | | | | | | | | | | |
| IN | 2004 | DE01 | 234 | | A | | 2006 | 0721 | | IN 2 | 004-1 | DE12: | 34 | | 2 | 0040 | 701 |
| IN | 2007 | DN00 | 722 | | A | | 2007 | 0427 | | IN 2 | 007-1 | DN72 | 2 | | 2 | 0070 | 125 |
| PRIORIT | Y APP | LN. | INFO | . : | | | | | | IN 2 | 004- | DE12: | 34 | - 1 | A 2 | 0040 | 701 |

The present invention relates to solid dosage forms for oral administration of an azabicyclo derivative or its pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs and metabolites; and processes for the preparation of such solid dosage forms. The solid dosage forms can be characterized as having excellent content uniformity. A capsule contained (2R)-(1-alpha, 5-alpha, 6-alpha)-N-[3-azabicyclohexyl-6-(aminomethyl)-yl]-2-hydroxy-2-cyclopentyl-2-Ph acetamide hydrochloride 0.10, lactose monohydrate 54.40, microcryst. cellulose 30.00, croscarmellose sodium 3.00, pre-gelatinized starch 10.00,

WO 2005-IB52104

W 20050624

10552503.trn 02/02/2009 Page 53 purified water q.s., magnesium stearate 1.00, talc 1.00, and colloidal silicon dioxide 0.50 mg.

IT 872994-89-3

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (solid oral dosage forms of azabicyclo derivs.)

N 872994-89-3 HCAPLUS

CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclopentyl- α -hydroxy-, hydrochloride (1:1) (CA INDEX NAME)

Relative stereochemistry.

HC1

REFERENCE COUNT:

1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1075634 HCAPLUS

DOCUMENT NUMBER: 143:373316

TITLE: Combination therapy using adrenergic receptor antagonist in combination with muscarinic receptor

antagonists and testosterone 5-reductase inhibitors for lower urinary tract symptoms

INVENTOR(S): Chugh, Anita; Tiwari, Atul
PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

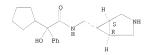
PATENT INFORMATION:

| PATEN | N TP | 10. | | | KIN | D | DATE | | 1 | APPL | ICAT | ION I | NO. | | D | ATE | |
|-------|------|-----|-----|-----|-----|-----|------|------|-----|------|------|-------|-----|-----|-----|------|-----|
| | | | | | | _ | | | | | | | | | | | |
| WO 20 | 0050 | 923 | 41 | | A1 | | 2005 | 1006 | 1 | WO 2 | 004- | IB84: | 2 | | 2 | 0040 | 322 |
| To De | ₫: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | ΚZ, | LC, |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NI, |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, |
| | | ΤJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW |
| F | RW: | BW, | GH, | GM, | KE, | LS, | MW, | ΜZ, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | AZ, |
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| | | ES, | FI, | FR, | GB, | GR, | HU, | IE, | ΙT, | LU, | MC, | NL, | PL, | PT, | RO, | SE, | SI, |
| | | SK, | TR, | BF, | BJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, |

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TD, TG
                         A1 20070131 EP 2004-722336
                                                                   20040322
     EP 1746998
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             IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, LT, LV, MK
     WO 2005092342
                               20051006
                                           WO 2004-IB866
                         A1
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                               20070427
                                            IN 2006-DN6061
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     IN 2006DN06389
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                                20070831
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                                                                   20061031
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                                                                   20080225
PRIORITY APPLN. INFO.:
                                            WO 2004-IB842
                                                                W 20040322
                                                                W 20040323
                                            WO 2004-IB866
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- AB This invention relates to combination therapy for the treatment of benign prostatic hyperplasia (BPH) and lower urinary tract symptoms (LUTS) associated with or without BPH. The combination therapy comprises of 1α adrenergic receptor (AR) subtype selective antagonist in combination with muscarinic receptor antagonist and optionally included Testosterone 5-reductase inhibitor for relief of LUTS in a subject with or without BPH.
- IT 646036-03-5 866097-19-0 866186-71-2
 - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (combination therapy using adrenergic receptor antagonist in combination with muscarinic receptor antagonists and testosterone 5-reductase inhibitors for lower urinary tract symptoms)
- RN 646036-03-5 HCAPLUS
- CN Benzeneacetamide, N-(3-azabicyclo[3.1.0]hex-6-ylmethyl)- α -cyclopentyl- α -hydroxy-, (1 α , 5 α , 6 α)- (CA INDEX NAME)

Relative stereochemistry.



- RN 866097-19-0 HCAPLUS
- CN Benzeneacetamide, N-[(1α , 5α , 6α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclopentyl- α -hydroxy-, (α R)- (CA INDEX NAME)

Absolute stereochemistry.

RN 866186-71-2 HCAPLUS

CN Benzeneacetamide, N-[$(1\alpha, 5\alpha, 6\alpha)$ -3-azabicyclo[3.1.0]hex-6ylmethyl]-α-cyclopentyl-α-hydroxy-, (αS)- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:41201 HCAPLUS DOCUMENT NUMBER: 140:111279

TITLE:

Preparation of 3,6-disubstituted

azabicyclo[3.1.0]hexane derivatives useful as muscarinic receptor antagonists

INVENTOR(S): Mehta, Anita; Silamkoti, Arundutt V.; Gupta, Jang

Bahadur

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PA: | TENT I | .00 | | | KIN | D | DATE | | | APPL | ICAT | ION I | NO. | | D | ATE | |
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2004 | | | WO 2 | 002- | IB26 | 63 | | 2 | 0020 | 708 |
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IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

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AU 2004228760 A1 20041021 NZ 2004-228760 20040107
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| ED. | 1620 | | | | | | 2006 | | | | | | | | | | 16 |
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| PRIORITY | | | | | DL | | 2000 | 1104 | | | | IB26 | | | 0020 | | |
| 111101111 | LILL | | | • • | | | | | | | | | | | 0030 | | |
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GI

AB This invention generally relates to the derivs. of novel 3,6 disubstituted azabicyclo(3.1.0) hexanes. The title compds. [I; Ar = each (un)substituted aryl or heteroaryl having 1-2 hetero atoms selected from the group consisting of O, S and N atoms; R1 = H, HO, hydroxymethyl, amino, alkoxy, carbamoyl or halogen (e.g. F, Cl, Br, iodo); R2 = alkyl, C3-7 cycloalkyl, C3-7 cycloalkenyl, each (un)substituted aryl or

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heteroaryl having 1 to 2 hetero atoms selected from a group consisting of O, S and N atoms; W = (CH2)p (where p = 0, 1); X = O, S, N, no atom; Y = CHR5CO (wherein R5 = H, Me) or (CH2)q (wherein q = 0-4); Z = 0, S, NR10 (wherein R10 = H, C1-6 alkyl); Q = (CH2)n (wherein n = 0-4), or CHR5 (wherein R5 = H, OH, C1-6 alkyl, alkenyl alkoxy) or CH2CHR9 (wherein R9 = H, OH, C1-4 alkyl, C1-C4 alkoxy); R6, R7 = CO2H, H, Me, CONH2, NH2, CH2NH2; R4 = (un)substituted C1-15 saturated or unsatd. aliphatic hydrocarbon groups), pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, prodrugs, or metabolites thereof are prepared These compds., e.g. $(1\alpha, 5\alpha, 6\alpha)$ -N-[[3-benzyl-3-azabicyclo[3.1.0]hexyl-6v1]methv1]-2-hvdroxv-2,2-diphenvlacetamide, $(1\alpha, 5\alpha, 6\alpha)$ -N-[[3-benzvl-3-azabicvclo[3.1.0]hexvl-6yl]methyl]-2-hydroxy-2-cyclohexyl-2-phenylacetamide, $(1\alpha, 5\alpha, 6\alpha)$ -N-[[3-benzyl-3-azabicyclo[3.1.0]hexyl-6y1]methy1]-2-hydroxy-2-cyclopenty1-2-phenylacetamide, $(1\alpha, 5\alpha, 6\alpha) - [[3-benzyl-3-azabicyclo[3.1.0]hexyl-6$ yl]methyl] 2-hydroxy-2,2-diphenylacetate, and are muscarinic receptor antagonists which are useful, inter-alia for the treatment or prophylaxis of various diseases or disorders of the respiratory, urinary and castrointestinal systems mediated through muscarinic receptors. particular, the diseases or disorders are urinary incontinence, lower urinary tract symptoms (LUTS), bronchial asthma, chronic obstructive pulmonary disorders (COPD), pulmonary fibrosis, irritable bowel syndrome, obesity, and diabetes or gastrointestinal hyperkinesis. 646035-99-6P 646036-01-3P 646036-03-5P 893427-06-0P 893427-12-8P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(intermediate; preparation of disubstituted azabicyclo[3.1.0]hexane derivs. as muscarinic receptor antagonists for treatment or prophylaxis of

646035-99-6 HCAPLUS CN Benzeneacetic acid, α-cyclohexyl-α-hydroxy-,

RN

(Reactant or reagent)

muscarinic receptor-mediated diseases or disorders) $(1\alpha, 5\alpha, 6\alpha)$ -3-azabicyclo[3.1.0]hex-6-ylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 646036-01-3 HCAPLUS

CN Benzeneacetic acid, α-cvclopentvl-α-hvdroxv-, (1α, 5α, 6α) -3-azabicvclo[3,1,0]hex-6-vlmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

10552503.trn 02/02/2009 Page 59

RN 646036-03-5 HCAPLUS

CN Benzeneacetamide, N-(3-azabicyclo[3.1.0]hex-6-ylmethyl)- α -cyclopentyl- α -hydroxy-, (1α , 5α , 6α)- (CA INDEX NAME)

Relative stereochemistry.

RN 893427-06-0 HCAPLUS

CN Benzeneacetamide, N-[(1 α ,5 α ,6 α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -hydroxy- α -phenyl- (CA INDEX NAME)

Relative stereochemistry.

RN 893427-12-8 HCAPLUS

CN Benzeneacetamide, N-[(1 α ,5 α ,6 α)-3-azabicyclo[3.1.0]hex-6-ylmethyl]- α -cyclohexyl- α -hydroxy- (CA INDEX NAME)

Relative stereochemistry.

10552503.trn 02/02/2009

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L15 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1993:517227 HCAPLUS

119:117227 DOCUMENT NUMBER:

ORIGINAL REFERENCE NO.: 119:21087a,21090a

TITLE: Preparation of azabicycloalkylquinolones and

-naphthyridinones as antibacterials INVENTOR(S): Brighty, Katherine E.

PATENT ASSIGNEE(S): Pfizer Inc., USA

SOURCE:

U.S., 42 pp. Cont.-in-part of U.S. Ser. No. 551,212,

abandoned. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | API | PLICATION NO. | | DATE | |
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| | | | | US | 1993-12202 | A3 | 19930202 | |
| | | | | | | | | |

MARPAT 119:117227 OTHER SOURCE(S): GI

- AB Title compds. [I, Rl = H, alkyl, pharmaceutically acceptable cation; Y = Et, Me3C, vinyl cyclopropyl, FCH2CH2, 4-FC6H4, 2, 4-FC6H4; W = F, Cl, Br, alkyl, alkoxy, (methyl)amino; A = CH, CCl, C(OMe), CMe, CCN, N; AY = atoms to form a (0-or double bond-containing) (substituted) 5-6 membered ring; R2 = Q1, Q2; R3, R4, R5, R6, R7, R9 = H, Me, CH2NH2, CH2NHHE, CH2NHEE; R5, R6, R1, R9 may also = NH2, NHMe, NHEE; ≤3 of R3, R4, R6, R7, R9, R10, R25 + H; if 3 of these + H, ≥1 of them = Me], were prepared as antibacterials (no data). Thus, 3-azabicyclo[3.1.0]hexane hydrochloride was heated with 1-cyclopropyl-6, 7-difluoro-1, 4-dihydro-4-oxoquinolinecarboxylic acid and Et3N in MgSO to give title compound II. 11 34575-12-5F 13475-62-3-B9
- RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, as intermediate for quinolone or naphthyridinone antibacterial)
- RN 134575-12-5 HCAPLUS
- CN Carbamic acid, N-[(1\alpha,5\alpha,6\alpha)-3-azabicyclo[3.1.0]hex-6-ylmethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Relative stereochemistry.

- RN 134575-23-8 HCAPLUS
- CN Carbamic acid, [(2-methyl-3-azabicyclo[3.1.0]hex-6-yl)methyl]-, 1,1-dimethylethyl ester, $(1\alpha,2\beta,5\alpha,6\alpha)$ (9CI) (CA INDEX NAME)

Relative stereochemistry.

L15 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1991:632216 HCAPLUS

ACCESSION NUMBER: 1991:63221 DOCUMENT NUMBER: 115:232216

ORIGINAL REFERENCE NO.: 115:39577a,39580a

TITLE: Preparation of 7-(azabicycloalkyl)quinolone- and -naphthyridonecarboxylates as antibacterials

INVENTOR(S): Brighty, Katherine Elizabeth

PATENT ASSIGNEE(S): Pfizer Inc., USA

SOURCE: Eur. Pat. Appl., 73 pp.

DOCUMENT TYPE: Patent

PR.

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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| | 103879 | | | B1 | | 19991015 | | | | | | |
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| | | | | | | | CA | 1990-2 | 023217 | A3 | 19900814 | |
| | | | | | | | FI | 1992-6 | 32 | A | 19920214 | |
| | | | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 115:232216

(preparation and reaction of, in preparation of (azabicycloalkyl)quinolone antibacterial)

GI For diagram(s), see printed CA Issue.

AB Title compds. [I Rl = H, alkyl, cation; Y = Rt, Me3C, H2C:CH cyclopropyl, FCH2CH2, 4-FC6H4, 2,4-F2C6H3; W = H, F, Cl, Br, alkyl, alkoxy, amino, aminomethyl; A = CH, CF, CCl, COMe, CMe, CCN, N; AY = atoms to form a 5-or 6-membered ring, optionally containing O or a double bond and optionally substituted by Me or :CH2; R2 = (Me-, H2NCH2-, MeNHCH2-, EtNHCH2-, etc. substituted) Ql, Q2], were prepared as antibacterials (no data). Thus, a mixture of 3-azabicyclo[3.1.0] hexane hydrochloride, l-cyclopropyl-6,7-difluoro-1,4-dihydro-4-oxoquinoline-3-carboxylic acid,

Et3N, and Me2SO was heated 18 h to give title compound II. 134575-12-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

10552501

RN 134575-12-5 HCAPLUS

CN Carbamic acid, N-[$(1\alpha, 5\alpha, 6\alpha)$ -3-azabicyclo[3.1.0]hex-6-ylmethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

Relative stereochemistry.

IT 134575-23-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for (azabicycloalkyl)quinolone)

RN 134575-23-8 HCAPLUS

CN Carbamic acid, [(2-methyl-3-azabicyclo[3.1.0]hex-6-yl)methyl]-, 1,1-dimethylethyl ester, $(1\alpha, 2\beta, 5\alpha, 6\alpha)$ - (9CI) (CA INDEX NAME)

Relative stereochemistry.

=> d 112 ibib abs tot

L12 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:771160 HCAPLUS

DOCUMENT NUMBER: 149:87637

TITLE: Modified-release formulations of azabicyclo derivatives

INVENTOR(S): Ketkar, Anant Ramesh; Kumar, Pratik; Rampal, Ashok

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 17pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 2008075321 A2 20080626 WO 2007-IB55299 20071221
WO 2008075321 A3 20080821
WI AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,

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CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI,
            GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG,
            KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
            MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,
            PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,
            TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
            GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
            BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
    IN 2006DE02751
                     A 20080801 IN 2006-DE2751
                                          IN 2006-DE2751 20061221
IN 2006-DE2751 A 20061221
PRIORITY APPLN. INFO.:
AB The present invention discloses modified-release oral dosage forms of an
    azabicyclo derivative or its pharmaceutically acceptable salts, solvates,
    esters, enantiomers, diastereomers, N-oxides and polymorphs; and processes
    for the preparation thereof. The modified release formulation comprises an
    azabicyclo derivative, at least one rate-controlling polymer and at least one
    pharmaceutically acceptable excipient which provides therapeutically
    effective plasma levels of the active ingredient for a period of up to 24
    h. Thus, tablet was prepared containing
    (2R) - (1\alpha, 5\alpha, 6\alpha) - N - (3-azabicvclo(3.1.0)hexvl-6-
    (aminomethy1)-y1]-2-hydroxy1-2cyclopenty1-2-Ph acetamide hydrochloride
    0.112 mg, microcryst. cellulose 175.888 mg, hydroxypropyl methylcellulose
    70.0 mg, talc 1.250 mg, colloidal anhydrous silica 1.0 mg, magnesium stearate
    1.750 mg, and water as needed.
L12 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:464247 HCAPLUS
DOCUMENT NUMBER:
                        146:468545
TITLE:
                       Pharmaceutical compositions of muscarinic receptor
                       antagonists
                       Ray, Abhijit; Dastidar, Sunanda G.; Shirumalla,
INVENTOR(S):
                       Rajkumar; Malhotra, Shivani
PATENT ASSIGNEE(S):
                      Ranbaxy Laboratories Ltd., India
SOURCE:
                       PCT Int. Appl., 100pp.
                       CODEN: PIXXD2
DOCUMENT TYPE:
                       Patent
LANGUAGE:
                       English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
    PATENT NO.
                  KIND DATE APPLICATION NO. DATE
                       ----
    WO 2007045979
                       A1 20070426 WO 2006-IB2930
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
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CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

KG, KZ, MD, RU, TJ, TM

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AU 2006305619 A1 20070426 AU 2006-305619
CA 2626612 A1 20070426 CA 2006-2626612
EP 1948164 A1 20080730 EP 2006-809068
                                                                20061019
                                                                  20061019
                                                                  20061019
        R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR
                                           IN 2008-DN3736
     IN 2008DN03736
                        A
                              20080815
                                                                  20080501
                                            IN 2005-DE2794
PRIORITY APPLN. INFO.:
                                                               A 20051019
                                           WO 2006-IB2930
                                                              W 20061019
                        MARPAT 146:468545
OTHER SOURCE(S):
   Pharmaceutical compns. are provided comprising one or more muscarinic
    receptor antagonists (MRA), and at least one addnl. active ingredients
     selected from one or more $2-agonists, p38 MAP kinase inhibitors,
     PDE-IV inhibitors, corticosteroids, etc., or a mixture thereof and
     optionally one or more pharmaceutically acceptable carriers, excipients or
     diluents. In addition, methods of treating autoimmune, inflammatory or
     allergic diseases or disorders are provided. For example, a synergistic
     effect was observed with the combination of muscarinic antagonist
     (2R)-(1a,5a,6a)-N-[3-azabicyclo[3.1.0]hexyl-6-(aminomethyl)-yl]-2-hydroxy-
     2-cyclopentyl 2-phenylacetamide hydrochloride (Compound 66) with PDE-IV
     inhibitor roflumilast for relaxing carbachol-precontracted guinea pig
     isolated trachea.
REFERENCE COUNT:
                              THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
                              RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT
L12 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                      2006:1174148 HCAPLUS
DOCUMENT NUMBER:
                        145:471412
TITLE:
                        Preparation of 3.6-disubstituted
                        azabicyclo[3.1.0]hexane derivatives as muscarinic
                        receptor antagonists for use against respiratory,
                        urinary and gastrointestinal diseases
                        Salman, Mohammad; Kumar, Naresh; Kaur, Kirandeep;
INVENTOR(S):
                        Aeron, Shelly, Sarma, Pakala Kumara Savithru;
                        Dharmarajan, Sankaranarayanan; Mehta, Anita; Chugh,
                        Anita
PATENT ASSIGNEE(S):
                       Ranbaxy Laboratories Limited, India
SOURCE:
                        PCT Int. Appl., 79pp.
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                   KIND DATE APPLICATION NO.
    PATENT NO.
                                                                DATE
     WO 2006117754 A1 20061109 WO 2006-IB51368 20060501
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
             VN, YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
            CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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KG, KZ, MD, RU, TJ, TM A1 20080220 EP 2006-728107 EP 1888525 20060501 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR IN 2007DN09221 A 20080118 IN 2007-DN9221 20071129 US 20080319043 A1 20081225 US 2008-913599 20080730 IN 2005-DE1810 A 20050503 IN 2006-DE1681 A 20060328 WO 2006-IB51368 W 20060501 PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 145:471412

R3

$$R^2$$
 W CO X Q R^2 N R^4

AB The present invention generally relates to azabicyclo[3.1.0]hexane derivs. (shown as I; variables defined below; e.g. N-(3-benzyl-3-azabicyclo[3.1.0]hex-6-yl)-2-hydroxy-2-phenyl-2-(2-thienyl)acetamide (1)) as muscarinic receptor antagonists, which are useful, among other uses, for the treatment of various diseases of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. The invention also relates to the process for the preparation of disclosed compds., pharmaceutical compns. containing the disclosed

compds., and the methods for treating diseases mediated through muscarinic receptors. For I: R1 is H or alkyl; R2 is straight or branched alkyl alkenyl, alkynyl, aryl, cycloalkyl, cycloalkylalkyl or heteroaryl (un) substituted with ≥1 alkyl, hydroxy or halogen. R3 is aryl or heteroaryl (un)substituted with ≥1 alkyl, hydroxy or halogen; W = -(CH2)i; Q = -(CH2)j; X is O or -N(R5)-; R4 is H, straight or branched alkyl, straight or branched alkenyl, aralkyl or heteroarylalkyl wherein the said aralkyl or heteroarvlalkyl is further substituted with alkyl, -NH2 or alkoxycarbonylamino; R5 is H or alkyl; Rw is H or Me; and n, i, i = 0-2. Results of radioligand binding assays for M2 and M3 muscarinic receptors are reported for many examples of I. Methods of preparation are claimed and prepns. and/or characterization data for .apprx.120 examples of I are included. For example, 1 was prepared from hydroxy(phenyl)(thien-2-v1)acetic acid and 3-benzyl-3-azabicyclo[3.1.0]hexan-6-amine in DMF using hydroxybenzotriazole, N-methylmorpholine and 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide.

1-ethyl-3-(3-dimethylaminopropyl)carbodismide.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:605804 HCAPLUS

DOCUMENT NUMBER: 145:83209

TITLE: Preparation of azabicyclo[3.1.0]hexanes-acid addition

salts as muscarinic receptor antagonists

INVENTOR(S): Salman, Mohammad; Kumar, Naresh; Yadav, Gyan Chand;

Sarma, Pakala Kumara Savithru Ranbaxv Laboratories Limited, India

SOURCE: PCT Int. Appl., 33 pp.

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT ASSIGNEE(S):

| | PA1 | ENT : | NO. | | | | | DATE | | | | | | | | D | ATE | | |
|-------|------------|-------|------|------|-----|------|------|------|------|------|------|------|------|------|-----|-----|------|-----|----|
| | | | | | | | - | | | | | | | | | | | | |
| | WO | 2006 | 0643 | 04 | | A1 | | 2006 | 0622 | | WO 2 | 004- | IB41 | 42 | | 2 | 0041 | 215 | |
| | | W: | AE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | |
| | | | CN. | co. | CR. | CU. | CZ. | DE. | DK. | DM. | DZ. | EC. | EE. | EG. | ES, | FI. | GB, | GD, | |
| | | | GE. | GH. | GM. | HR. | HU. | ID, | IL. | IN. | IS. | JP. | KE. | KG. | KP. | KR. | KZ. | LC. | |
| | | | | | | | | LV, | | | | | | | | | | | |
| | | | | | | | | PL, | | | | | | | | | | | |
| | | | | | | | | TT, | | | | | | | | | | | ZW |
| | | RW: | | | | | | CZ, | | | | | | | | | | | |
| | IS, IT, LT | | | | | | | | | | | | | | | | | | |
| | CG, CI, CN | | | | | | | | | | | | | | | | | | |
| | | | | | | | | SD, | | | | | | | | | | | |
| | | | | MD, | | | | | | | | | | | | | | | |
| | EΡ | 1828 | | | | | | 2007 | 0905 | | EP 2 | 004- | 8063 | 53 | | 2 | 0041 | 215 | |
| | | R: | AT. | BE. | BG. | CH. | CY. | CZ, | DE. | DK. | EE. | ES. | FI. | FR. | GB, | GR. | HU. | IE, | |
| | | | | | | | | MC, | | | | | | | | | | | |
| | IN | 2007 | | | | | | | | | | | | | | | 0070 | 619 | |
| PRIOR | ITY | APP | LN. | INFO | . : | | | | | | WO 2 | 004- | IB41 | 42 | | W 2 | 0041 | 215 | |
| OTHER | SC | URCE | (S): | | | CASI | REAC | T 14 | 5:83 | 209: | MARI | PAT | 145: | 8320 | 9 | | | | |
| GI | | | | | | | | | | | | | | | | | | | |

AB Title compds. I [R1 = optionally substituted phenyl; R2 = optionally substituted alkyl with halo, optionally substituted Pwinth halo, optionally substituted Pwinth halo, optionally substituted Pwinth P

Ι

(3,3-airlulorocyclopentyl)-2-nydroxy-2-pnenylacetamide (11) and b-tartaric acid was stirred at room temperature for 4 h to give L-tartaric acid salt of compound II. In muscarinic receptor binding assays, the Ki values of 34 examples were in the range of from about 0.01 to about 2 nM for rat M3 receptors, from about 0.01 to about about 25 nM for rat M2 receptors.

10552503.trn 02/02/2009 Page 68

Compds. I are claimed useful for the treatment of urinary incontinence,

bronchial asthma, etc. REFERENCE COUNT: THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:318950 HCAPLUS

DOCUMENT NUMBER: 144:369923

TITLE: 3-Azabicyclo[3.1.0]hexane derivatives as muscarinic

receptor antagonists and their preparation, pharmaceutical compositions, and use for treatment of

prophylaxis of of respiratory, urinary, or

gastrointestinal diseases

INVENTOR(S): Mehta, Anita; Salman, Mohammad; Sarma, Pakala Kumara Savithru; Aeron, Shelley; Chugh, Anita; Gupta, Suman

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India PCT Int. Appl., 54 pp.

SOURCE:

CODEN: PIXXD2 Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

DOCUMENT TYPE:

| PA: | TENT | NO. | | | KIN | D | DATE | | | APPL | ICAT: | ION | NO. | | D. | ATE | |
|----------|------------------------------|------|------|-----|------|------|------|------|------|------|-------|------|------|-----|-----|------|-----|
| WO | 2006 | 0352 | 82 | | A2 | - | 2006 | 0406 | | WO 2 | 005- | TB28 | 3.8 | | 2 | 0050 | 926 |
| | 2006 | | | | | | | | | | | | | | _ | | |
| | | | | | | | AU, | | BA. | BB. | BG. | BR. | BW. | BY. | B7. | CA. | CH. |
| | | | | | | | DE, | | | | | | | | | | |
| | | | | | | | ID, | | | | | | | | | | |
| | | | | | | | LU, | | | | | | | | | | |
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| | | | | | TM, | | | | | | | | | | | | |
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| | YU, ZA, ZN
RW: AT, BE, BG | | | | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, |
| | | IS, | IT, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, | BJ, |
| | | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | TG, | BW, | GH, |
| | | GM, | KE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | AZ, | BY, |
| | | KG, | KZ, | MD, | RU, | TJ, | TM | | | | | | | | | | |
| EP | 1796 | 667 | | | A2 | | 2007 | 0620 | | EP 2 | 005- | 7897 | 67 | | 2 | 0050 | 926 |
| | R: | ΑT, | ΒE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, |
| | | IS, | IT, | LI, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR | |
| IN | 2007 | DN01 | 636 | | A | | 2007 | 0803 | | | | | | | | | |
| PRIORIT: | Y APP | LN. | INFO | . : | | | | | | IN 2 | | | | | | | |
| | | | | | | | | | | WO 2 | | | | | W 2 | 0050 | 926 |
| THER SO | OURCE | (S): | | | CASI | REAC | T 14 | 4:36 | 9923 | ; MA | RPAT | 144 | :369 | 923 | | | |

OTH GI

$$\begin{array}{c|c} \mathbf{Ar} & \mathbf{C} & \mathbf{R}^4 \\ \mathbf{R}^3 & \mathbf{R}^1 & \mathbf{N}_{\mathbf{R}^2} \\ & \mathbf{R}^5 & \mathbf{I} \end{array}$$

AB This invention generally relates to muscarinic receptor antagonists of formula 1, which are useful, among other uses, for the treatment of various diseases of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. The invention also relates to the process for the preparation of disclosed compds., pharmaceutical compns. containing

the disclosed compds, and the methods for treating diseases mediated through muscarinic receptors. Compds. of formula I wherein RI is H, C1-6 alkyl, C2-7 alkenyl, C2-7 alkynyl, cycloalkyl, (un)substituted amino, or OH and derivs., R2 is carboxy, SO26K, CO2R7, NH2 and derivs., or CON12 and derivs., etc.; R3 is alkyl, alkenyl, alkynyl, cycloalkyl, (hetero)aryl, aralkyl, or heterocyclyl(alkyl); R4 and R5 are independently H, C1-6 alkyl, C2-7 alkenyl, or C2-7 alkynyl, aralkyl, is O, NH3 and derivs., C1-6 alkyl, C2-7 alkenyl, aralkyl, or aryl; Ar is (hetero)aryl or heterocyclyl; and their stereoisomers, polymorphs, pharmaceutically acceptable salts, and solvates thereof and methods for preparation are claimed. Example compound II was prepared by sulfonylation of N-(1a, 5a, 6a)-(3-azabicyclo[3.1.0]hex-6-ylmethyl)-2-cyclopentyl-2-hydroxy-2-Ph acetamide with p-nitrophenylsulfonyl chloride. All the invention compds. were evaluated for their binding affinity

All the invention compds. were evaluated for their binding affinity towards muscarinic receptors. From the assay, it was determined that most of the invention compds. exhibited Ki values for M2 and M3 muscarinic receptors in the range of about 1000 nM to about 7.8 nM and 1000 nM to

about 0.5 nM, resp.

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2006:30422 HCAPLUS

ACCESSION NUMBER: 2006:30422 DOCUMENT NUMBER: 144:114451

TITLE: Solid oral dosage forms of azabicyclo derivatives INVENTOR(S): Rao, Korlapati Venkateswara; Karatgi, Pradeep Jai Rao;

Murthy, Ayanampudi Sri Rama
PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

10552503.trn 02/02/2009 Page 70

SOURCE: PCT Int. Appl., 16 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PAT | TENT I | .00 | | | KIN | D | DATE | | | APPL | ICAT | ION I | NO. | | D | ATE | |
|------------------------|------------------------------|------------|------|--------|-------|-----|-------|------|------|-----|------|------|--------|-----|-----|-----|------|-----|
| | | 2006 | | | | | | 2006 | | | WO 2 | 005- | IB52 | 104 | | 2 | 0050 | 624 |
| | WO | 2006 | 0035 | 87 | | A3 | | 2006 | 0914 | | | | | | | | | |
| | | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | | GE, | GH, | GM, | HR, | HU, | ID, | IL. | IN. | IS, | JP, | KE, | KG, | KM. | KP, | KR, | KZ. |
| | | | | | | | | | | | | MG, | | | | | | |
| | NG, NI, NO | | | | | | | | | | | | | | | | | |
| | SL, SM, SY | | | | | | | | | | | | | | | | | |
| | | ZA, ZM, ZW | | | | | | | | | | | | | | | | |
| | | RW: | AT. | BE. | BG. | CH. | CY. | CZ. | DE. | DK. | EE. | ES, | FI. | FR. | GB. | GR. | HU. | IE. |
| | | | | | | | | | | | | SE, | | | | | | |
| | | | | | | | | | | | | NE, | | | | | | |
| | | | | | | | | | | | | UG, | | | | | | |
| | | | | | | | | | | | | | | | | | | , |
| | KZ, MD, RU
IN 2004DE01234 | | | | | | | 2006 | 0721 | | TN 2 | 004- | DE 12: | 3.4 | | 2 | 0040 | 701 |
| | IN 2007DN00722 | | | | | | | 2007 | | | | 007- | | | | | 0070 | |
| PRIORITY APPLN. INFO.: | | | | | | | | | | | | 004- | | | | | | |
| | | | | | | | | | | | | 005- | | | | | | |
| 7 D | The | | aant | d need | ant i | | -1 -+ | aa + | | | | | | | | | 0000 | 027 |

AB The present invention relates to solid dosage forms for oral administration of an azabicyclo derivative or its pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs and metabolites; and processes for the preparation of such solid dosage forms. The solid dosage forms can be characterized as having excellent content uniformity. A capsule contained (2R)-(1-alpha, 5-alpha, 6-alpha)-N-[3-azabicyclohexyl-6-(aminomethyl)-yl]-2-hydroxy-2-cyclopentyl-2-Ph acetamide hydrochloride 0.10, lactose monohydrate 54.40, microcryst. celluloss 30.00, crocarmellose sodium 3.00, pre-gelatinized starch 10.00, purified water q.s., magnesium stearate 1.00, talc 1.00, and colloidal

silicon dioxide 0.50 mg. REFERENCE COUNT: 1

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1075634 HCAPLUS

DOCUMENT NUMBER: 143:373316

TITLE: Combination therapy using adrenergic receptor antagonist in combination with muscarinic receptor antagonists and testosterone 5-reductase inhibitors

for lower urinary tract symptoms

INVENTOR(S): Chugh, Anita; Tiwari, Atul

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

FAMILY ACC. NUM. COUNT: : PATENT INFORMATION:

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PATENT NO. KIND DATE APPLICATION NO. DATE
     WO 2005092341 A1 20051006 WO 2004-IB842 20040322
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
              GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
              LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
              NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
              TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
              BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
              ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
              SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
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     EP 1746998
                                 20070131 EP 2004-722336
                                                                       20040322
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         R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
              IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, LT, LV, MK
     WO 2005092342 A1 20051006 WO 2004-IB866 20040323
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
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              SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
              TD, TG
     IN 2006DN06061 A 20070427 IN 2006-DN6061
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US 20080167317 A1 20080710 US 2008-593939
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                                                                      20061031
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                                              WO 2004-IB842
                                                                   W 20040322
PRIORITY APPLN. INFO.:
                                                                   W 20040323
    This invention relates to combination therapy for the treatment of benign
     prostatic hyperplasia (BPH) and lower urinary tract symptoms (LUTS)
     associated with or without BPH. The combination therapy comprises of
     1α adrenergic receptor (AR) subtype selective antagonist in
     combination with muscarinic receptor antagonist and optionally included
     Testosterone 5-reductase inhibitor for relief of LUTS in a subject with or
     without BPH.
REFERENCE COUNT:
                               THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L12 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:41201 HCAPLUS
DOCUMENT NUMBER:
                          140:111279
TITLE:
                          Preparation of 3,6-disubstituted
                          azabicyclo[3.1.0]hexane derivatives useful as
                          muscarinic receptor antagonists
INVENTOR(S):
                          Mehta, Anita; Silamkoti, Arundutt V.; Gupta, Jang
                          Bahadur
PATENT ASSIGNEE(S):
                         Ranbaxy Laboratories Limited, India
                          PCT Int. Appl., 72 pp.
SOURCE:
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
LANGUAGE:
                          English
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FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

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           BR 2004009308 A 20060502 BR 2004-9308
PRIORITY APPLN. INFO.:
OTHER SOURCE(S): MARPAT 140:111279
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AB

the group consisting of O, S and N atoms; R1 = H, HO, hydroxymethyl, amino, alkoxy, carbamoyl or halogen (e.g. F, Cl, Br, iodo); R2 = alkyl, C3-7 cycloalkyl, C3-7 cycloalkenyl, each (un)substituted aryl or heteroaryl having 1 to 2 hetero atoms selected from a group consisting of O, S and N atoms; W = (CH2)p (where p = 0, 1); X = O, S, N, no atom; \bar{Y} = CHR5CO (wherein R5 = H, Me) or (CH2)q (wherein q = 0-4); Z = 0, S, NR10 (wherein R10 = H, C1-6 alkyl); Q = (CH2)n (wherein n = 0-4), or CHR5 (wherein R5 = H, OH, C1-6 alkyl, alkenyl alkoxy) or CH2CHR9 (wherein R9 = H, OH, C1-4 alkvl, C1-C4 alkoxv); R6, R7 = CO2H, H, Me, CONH2, NH2, CH2NH2; R4 = (un)substituted C1-15 saturated or unsatd, aliphatic hydrocarbon groups], pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, prodrugs, or metabolites thereof are prepared These compds., e.g. (1α, 5α, 6α) -N-[[3-benzyl-3-azabicyclo[3.1.0]hexyl-6vllmethvll-2-hvdroxv-2,2-diphenvlacetamide, $(1\alpha, 5\alpha, 6\alpha)$ -N-[[3-benzyl-3-azabicyclo[3.1.0]hexyl-6y1]methy1]-2-hydroxy-2-cyclohexy1-2-phenylacetamide, $(1\alpha, 5\alpha, 6\alpha)$ -N-[[3-benzyl-3-azabicyclo[3.1.0]hexyl-6v1]methy1]-2-hydroxy-2-cyclopenty1-2-phenylacetamide, (1α, 5α, 6α) - [[3-benzyl-3-azabicyclo[3.1.0]hexyl-6yl]methyl] 2-hydroxy-2,2-diphenylacetate, and are muscarinic receptor antagonists which are useful, inter-alia for the treatment or prophylaxis of various diseases or disorders of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. In particular, the diseases or disorders are urinary incontinence, lower urinary tract symptoms (LUTS), bronchial asthma, chronic obstructive pulmonary disorders (COPD), pulmonary fibrosis, irritable bowel syndrome, obesity, and diabetes or gastrointestinal hyperkinesis. REFERENCE COUNT: THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

This invention generally relates to the derivs. of novel 3.6 disubstituted

(un) substituted aryl or heteroaryl having 1-2 hetero atoms selected from

azabicyclo[3.1.0] hexanes. The title compds. [I; Ar = each

=> d 117 ibib abs tot

L17 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2007:793702 HCAPLUS DOCUMENT NUMBER: 147:166197 TITLE: Preparation of tartaric acid functional compounds for the treatment of disorders mediated by MMPs, aggrecanase, ADMP, LpxC, ADAMs, TACE and TNF- α Siddiqui, M. Arshad; Mansoor, Umar Faruk; Reddy, INVENTOR(S): Panduranga Adulla P.; Madison, Vincent S. PATENT ASSIGNEE(S): Schering Corp., USA SOURCE: U.S. Pat. Appl. Publ., 556pp., Cont.-in-part of U.S. Ser. No. 291,595.

10552503.trn 02/02/2009

CODEN: USXXCO Patent English

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

DOCUMENT TYPE:

| PATENT NO. KIND DATE | E APPLICATION NO. DATE | |
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51109 US 2005-142601 20050601 <
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OTHER SOURCE(S): MARPAT 147:166197

AB The title compds. I [A = (un)substituted benzimidazol-2-yl, imidazol-2-yl, CONH2, CSNH2, etc., J, E = 0, S, RR5 (wherein R5 = H, alkyl, alkylaryl); T = 0, S; Rl0, R20 = H, alkyl, fluoroalkyl; R30 = H, alkyl or R30 and R40, taken together with N to which R40 is attached, are joined to form 4-7 membered (un)substituted heterocyclyl; R40, R50 = H, alkyl; W = [CR13]2]n (wherein n = 0-5 or a bond; R13 = H, halo, OH, etc.); X = a bond, alkyl, cycloalkyl, etc.; Y = a bond, O, S, NH, etc.; Z = H, alkyl, aryl, etc.; or their pharmaceutically acceptable salts] which can be useful for the treatment of diseases or conditions mediated by MMPe, aggrecanase, ADMP, LpxC, ADAMs, TACE and TNF- α , were prepared E.g., a multi-step synthesis of II, starting from 2,2-dimethyl-[1,3]dioxolane-4R, SR-dicarboxylic acid monomethyl ester and 2-(thien-l-yl)ethylamine, was given. The compds. I were tested against LpxC and ADMP (biol. data given for representative compds. I).

L17 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:61790 HCAPLUS

DOCUMENT NUMBER: 146:162865

TITLE: Preparation of azabicyclic compounds as muscarinic

receptor antagonists
INVENTOR(S): Kumar, Naresh; Kaur, Kirandeep; Sinha, Sandeep; Gupta,

Suman; Palle, Venkata P.; Chugh, Anita

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 95pp.

SOURCE: PCT Int. Appl., CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| P | | | | | | KIN | | DATE | | | APPL | | | | | | ATE | |
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| | VO 2 | 2007 | 0072 | 82 | | A2 | | 2007
2007 | 0118 | | | | | | | | 0060 | |
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| | | | KR, | KZ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | LY, | MA, | MD, | MG, | MK, | MN, |
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| | US, UZ, ' | | | | | VN, | ZA, | ZM, | zw | | | | | | | | | |
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| | | | KG, | KZ, | MD, | RU, | ТJ, | TM, | ΑP, | EA, | EP, | OA | | | | | | |
| E | | | | | | | | 2008 | | | | | | | | | | |
| | | R: | | | | | | CZ, | | | | | | | | | | IE, |
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| | US 20090012116 | | | | | | | 2009 | 0108 | | | | | | | | | |
| PRIORI | IORITY APPLN. INFO.: | | | | | | | | | | IN 2 | | | | | | | |
| | | | | | | | | | | | WO 2 | 006- | IB52 | 350 | | W 2 | 0060 | 711 |
| OTHER | THER SOURCE(S): | | | | | | PAT | 146: | 1628 | 65 | | | | | | | | |

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I fring A represents a nitrogen-containing C4-C8 cyclic ring; T = bridging group selected from -(CH2)n-, -CH(Q)CH2-, -CH(Q)-, etc., wherein bridging group attached to two carbon atoms of ring A; Q = alkyl, alkenyl, alkynyl, etc.; n = 0-3; X = 0, S or NRs; Rs = H, alkyl, cycloalkyl, etc.; Y = alkylene or no atom (wherein when Y is no atom, then X is directly attached to B); Z = NHR2, aryl, cycloalkyl, etc.; R2 = alkyl, aryl, aralkyl, etc.; R1 = H, aralkyl or Ru; Ru = alkyl, halo, aryl, etc.], pharmaceutically acceptable salts, solvates, enantiomers, diastereomers, polymorphs or N-oxides thereof were prepared For example, reaction of diphenylphosphoryl azide with biphenyl-2-carboxylic acid

followed by in-situ treatment with (3-benzyl-3-azabicyclo[3.1.0]hex-6-yl)methanol, e.g., prepared from N-benzylmaleimide in 3 steps, afforded compound II. The compds. described herein exhibited Ki values for M2 and M3 receptors with 4-2170 nM and 0.1-1000 µM, resp. Compds. I are claimed useful for the treatment of urinary incontinence, bronchial asthma, etc.

L17 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:61789 HCAPLUS

DOCUMENT NUMBER: 146:142519

TITLE: preparation of isoquinoline derivatives as muscarinic

receptor antagonists

INVENTOR(S): Kumar, Naresh; Salman, Mohammad; Kaur, Kirandeep;

Chugh, Anita; Sinha, Sandeep PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

PCT Int. Appl., 57pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

| PA | TENT | NO. | | | KIN | | DATE | | | APPL | ICAT | | | | D. | ATE | |
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| | 2007 | 0072 | 81 | | A2 | | | | | | | | | | 2 | 0060 | 711 |
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| | | KR, | ΚZ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | LY, | MA, | MD, | MG, | MK, | MN, |
| | | MW, | MX, | ΜZ, | NA, | NG, | NΙ, | NO, | ΝZ, | OM, | PG, | PH, | PL, | PT, | RO, | RS, | RU, |
| | | SC, | SD, | SE, | SG, | SK, | SL, | SM, | SY, | ТJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, |
| | US, UZ, V | | | | VN, | ZA, | ZM, | ZW | | | | | | | | | |
| | RW: AT, BE, B | | | | | | | | | | | | | | | | |
| | | IS, | ΙT, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, | BJ, |
| | | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | ΝE, | SN, | TD, | TG, | BW, | GH, |
| | | GM, | KE, | LS, | MW, | ΜZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | ΑZ, | BY, |
| | | KG, | KZ, | MD, | RU, | ТJ, | TM, | ΑP, | EA, | EP, | OA | | | | | | |
| EP | 1904 | 495 | | | A2 | | 2008 | 0402 | | EP 2 | 006- | 7800 | 39 | | 2 | 0060 | 711 |
| | R: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, |
| | | IS, | ΙT, | LI, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR | |
| IN | IN 2008DN00811 | | | | | | 2008 | 0425 | | IN 2 | -800 | DN81 | 1 | | 2 | 0800 | 129 |
| US | US 20080255188 | | | | | | 2008 | 1016 | | US 2 | 008- | 9954 | 33 | | 2 | 0800 | 611 < |
| PRIORIT | Y APP | LN. | INFO | . : | | | | | | IN 2 | 005- | DE17 | 98 | | A 2 | 0050 | 711 |
| | | | | | | | | | | WO 2 | 006- | IB52 | 349 | | W 2 | 0060 | 711 |
| OTHER S | OURCE | | MARI | PAT | 146: | 1425 | 19 | | | | | | | | | | |

OT GI

Page 78

AB The title isoquinoline derivs. I (wherein Rl = (un)substituted azabicycly; R2 = H, (cyclo)alkyl, heterocyclyl(alkyl), etc.; R3 = H, (cyclo)alkyl, alkenyl, heterocyclyl, etc.], or pharmaceutically acceptable salts, solvates, enantiomers, diastereomers, polymorphs, N-oxides, esters, prodrugs, or metabolites thereof were prepared as muscarinic receptor antagonists for the treatment of respiratory, urinary, and gastrointestinal systems diseases (no data). For example, I was prepared in a multi-step synthesis. Most compds. showed inhibitory activity with pKi in the range of 5.5 to 8.5 against muscarinic receptors.

L17 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1174148 HCAPLUS

DOCUMENT NUMBER: 145:471412

TITLE: Preparation of 3,6-disubstituted

azabicyclo[3.1.0]hexane derivatives as muscarinic receptor antagonists for use against respiratory,

urinary and gastrointestinal diseases
INVENTOR(S): Salman, Mohammad; Kumar, Naresh; Kaur, Kirandeep;

Aeron, Shelly; Sarma, Pakala Kumara Savithru; Dharmarajan, Sankaranarayanan; Mehta, Anita; Chugh,

Anita

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 79pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| | TENT | | | | KIN | D | DATE | | | APPL | | | | | | ATE | |
|---------|----------------------------------|------|-----|-----|-----|-----|------|------|-----|------|-----|------|-----|-----|-----|------|-------|
| WO | 2006 | 1177 | 54 | | A1 | | 2006 | 1109 | | | | | | | 2 | 0060 | 501 |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KΕ, | KG, | KM, | KN, | KP, | KR, |
| | | | | | | | LT, | | | | | | | | | | |
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| | | | | | | | ΤJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, |
| | | | YU, | | | | | | | | | | | | | | |
| | RW: | | | | | | CZ, | | | | | | | | | | |
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| | | | | | | | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | AZ, | BY, |
| ED | 1888 | | KZ, | | | | | 0000 | | -n 1 | 000 | 7201 | 0.7 | | 2 | 0000 | E 0.1 |
| EP | | | | | | | | | | | | | | | | | |
| | R: | | | | | | CZ, | | | | | | | | | | IL, |
| TM | 2007 | | | | | | | | | | | | | | | | 120 |
| | IN 2007DN09221
US 20080319043 | | | | | | | | | | | | | | | | |
| | IORITY APPLN. INFO.: | | | | | | 2000 | 1225 | | | | | | | | | |
| INIONII | ORITY APPLN. INFO.: | | | | | | | | | | | | | - 1 | | | |
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| OTHER S | OURCE | (S): | | | MAR | PAT | 145: | 4714 | | _ | | | | | | | |

10552503.trn 02/02/2009

AB The present invention generally relates to azabicyclo[3.1.0]hexane derivs. (shown as I; variables defined below; e.g. N-(3-benzy1-3-azabicyclo[3.1.0]hex-6-y1)-2-hydroxy-2-pheny1-2-(2thienyl)acetamide (1)) as muscarinic receptor antagonists, which are useful, among other uses, for the treatment of various diseases of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. The invention also relates to the process for the preparation of disclosed compds., pharmaceutical compns. containing the disclosed

compds., and the methods for treating diseases mediated through muscarinic receptors. For I: R1 is H or alkv1; R2 is straight or branched alkv1 alkenyl, alkynyl, aryl, cycloalkyl, cycloalkylalkyl or heteroaryl (un) substituted with ≥1 alkyl, hydroxy or halogen. R3 is aryl or heteroaryl (un)substituted with ≥1 alkyl, hydroxy or halogen; W = -(CH2)i; Q = -(CH2)j; X is O or -N(R5)-; R4 is H, straight or branchedalkyl, straight or branched alkenyl, aralkyl or heteroarylalkyl wherein the said aralkyl or heteroarylalkyl is further substituted with alkyl, -NH2 or alkoxycarbonylamino; R5 is H or alkyl; Rw is H or Me; and n, i, j = 0-2. Results of radioligand binding assays for M2 and M3 muscarinic receptors are reported for many examples of I. Methods of preparation are claimed and prepns. and/or characterization data for .apprx.120 examples of I are included. For example, 1 was prepared from hydroxy(phenyl)(thien-2-yl)acetic acid and 3-benzyl-3-azabicyclo[3.1.0]hexan-6-amine in DMF using hydroxybenzotriazole, N-methylmorpholine and 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1070195 HCAPLUS

DOCUMENT NUMBER: 145:419146

TITLE: Preparation of bicyclic [3.1.0] heteroaryl amides as

type 1 glycine transport inhibitors

INVENTOR(S): Michardy, Stanton Furst; Lowe, John Adams, III

PATENT ASSIGNEE(S): Pfizer Products Inc., USA

SOURCE: PCT Int. Appl., 103pp. CODEN: PIXXD2

Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

DOCUMENT TYPE:

| PATENT NO. | KIND DATE | APPLICATION NO. | DATE |
|---------------|----------------|-----------------------------|-------------|
| | | | |
| WO 2006106425 | A1 20061 | 012 WO 2006-IB947 | 20060327 |
| W: AE, AG, A | L. AM. AT. AU. | AZ, BA, BB, BG, BR, BW, BY, | BZ, CA, CH, |

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            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
            KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
            MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
             SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
             VN, YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
     AU 2006231917
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     EP 1869019
                         A1
                               20071226
                                           EP 2006-727516
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             IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,
             BA, HR, MK, YU
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                                            JP 2008-504868
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     JP 4193949
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     US 20060229455
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                                           US 2006-399071
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    NL 1031539
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     NO 2007004993
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                                            IN 2007-DN7656
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     MX 200712463
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     KR 2007120582
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     CN 101189228
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                                            CN 2006-80019890
                                                                    20071205
                                            US 2005-669472P P 20050408
WO 2006-IB947 W 20060327
PRIORITY APPLN. INFO.:
OTHER SOURCE(S):
                       MARPAT 145:419146
GT
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AB The title compds. I [Rl = (un)substituted imidazolyl, thiazolyl, pyridyl, etc; R2, R3, A = H, (un)substituted alkyl; O = (CH2)n (wherein n = 1-4), (CH2)mO (m = 2-4); Z = aryl, alkyl, cycloalkyl; R4, R5 = H, halo, alkyl, etc.; Y = H, aryl, alkyl, etc.] that exhibit activity as glycine transport inhibitors, were prepared E.g., a multi-step synthesis of l-methyl-lH-imidazole-4-carboxylic acid (3-azabicyclo[3.1.0]hex-6-ylmethyl)-[3-trifluoromethoxybenzyl)amide

hydrochloride, starting from (3-azabicyclo[3.1.0]hex-6-yl)methanol.HCl, was given. Compds. I were found to have significant activity in inhibiting glycine reuptake in synaptosomes, having greater than 20% inhibition at 1 µM when tested using GlyTl radioligand binding assay. The invention also relates to pharmaceutical compns. containing compds. I and their use for the enhancement of cognition and the treatment of the pos. and neg. symptoms of schizophrenia and other psychoses in mammals, including humans.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:796760 HCAPLUS

DOCUMENT NUMBER: 145:230531

TITLE: Preparation of tartaric acid functional compounds for the treatment of inflammatory disorders mediated by

MMPs, aggrecanase, ADMP, $Lpx\bar{C}$, ADAMs, TACE and $TNF-\alpha$

INVENTOR(S): Siddiqui, M. Arshad; Mansoor, Umar Faruk; Reddy, Panduranga A.; Madison, Vincent S.

PATENT ASSIGNEE(S): Schering Corporation, USA

SOURCE: U.S. Pat. Appl. Publ., 523pp., Cont.-in-part of U.S.

Ser. No. 142,601. CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3 PATENT INFORMATION:

| | PATENT NO. | | | | | | | | | | ICAT | | | | | ATE | | |
|---------|-----------------------|------|-------|-----|-----|-----|------|------|-----|------|------|------|-----|-----|------|------|-----|---|
| US | 200 | 6017 | 3366 | | A1 | | 2006 | 0810 | | US 2 | 005- | 2915 | 95 | | 2 | 0051 | 201 | |
| | | | 2778 | | | | | 1109 | | | | | | | | 0050 | | |
| | | | 7426 | | | | | 0719 | | | | | | | | 0061 | | < |
| | | | 521 | | | | | 0607 | | | | | | | | | | |
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| | | RS | , RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | sv, | SY, | ΤJ, | TM, | TN, | TR, | TT, | |
| | | TZ | UA, | UG, | US, | UZ, | VC, | VN, | ZA, | ZM, | ZW | | | | | | | |
| | RW | : AT | , BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, | |
| | | IS | IT, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, | ΒJ, | |
| | | CF | . CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | TG, | BW, | GH, | |
| | | GM | KE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | AZ, | BY, | |
| | | KG | KZ, | MD, | RU, | TJ, | TM | | | | | | | | | | | |
| EF | 195 | 7058 | | | A1 | | 2008 | 0820 | | EP 2 | 006- | 8446 | 52 | | 2 | 0061 | 129 | |
| | R: | AT | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | |
| | | IS | IT, | LI, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | AL, | |
| | | BA | HR, | MK, | RS | | | | | | | | | | | | | |
| M | 200 | 8007 | 092 | | A | | 2008 | 0814 | | MX 2 | 008- | 7092 | | | 2 | 0080 | 502 | |
| | KR 2008071200 | | | | | | | | | | | | | | | 0080 | | |
| PRIORIT | RIORITY APPLN. INFO.: | | | | | | | | | US 2 | 004- | 5761 | 53P | | P 2 | 0040 | 502 | |
| | | | | | | | | | | US 2 | 005- | 1426 | 01 | | A2 2 | 0050 | 501 | |
| | | | | | | | | | | | | | | | | | | |

US 2005-291595 A2 20051201 WO 2006-US45773 W 20061129

OTHER SOURCE(S): MARPAT 145:230531

GI

R30 E R10 R40 A N N X Y Z R50 J T

AB The title compds. I [A = (un)substituted benzimidazol-2-yl, imidazol-2-yl, CONH2, CSNH2, etc.; J, E = O, S, NR5 (wherein R5 = H, alkyl, alkylaryl); T = O, S; R10, R20 = H, alkyl, fluoroalkyl; R30 = H, alkyl or R30 and R40, taken together with N to which R40 is attached, are joined to form 4-7 membered (un)substituted heterocyclyl; R40, R50 = H, alkyl; W = [CR13]2]n (wherein n = 0-5 or a bond; R13 = H, halo, OH, etc.); X = a bond, alkyl, cycloalkyl, etc.; Y = a bond, O, S, NH, etc.; Z = H, alkyl, aryl, etc.; or their pharmaceutically acceptable salts] which can be useful for the treatment of diseases or conditions mediated by MMPs, aggrecanase, ADMP, lpxC, ADAMs, TACE and TNF-a, were prepared E.g., a multi-step synthesis of II, starting from 2,2-dimethyl-[1,3]dioxolane-4R, SR-dicarboxylic acid monomethyl ester and 2-(thien-1-yl)ethylamine, was given. The compds. I were tested against LpxC and ADMP (biol. data given for representative commods. I).

L17 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:54428 HCAPLUS

DOCUMENT NUMBER: 144:150237

TITLE: Preparation of 9H-xanthene-9-carboxylic esters and related compounds as muscarinic receptor antagonists

INVENTOR(S): Mehta, Anita; Salman, Mohammad; Sarma, Pakala, Kumara, Savithru; Chugh, Anita; Gupta, Suman

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | TENT | | | | KIN | D | DATE | | | APPL | | | | | D | ATE | |
|--------|-------|------|------|-----|-----|------|------|------|------|------|------|------|------|-----|-----|------|-------|
| WO | 2006 | 0059 | 80 | | A1 | | 2006 | 0119 | | WO 2 | 004- | IB20 | 04 | | 2 | 0040 | 616 |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | co, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | HR. | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR. | KZ, | LC, |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NI, |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, |
| | | TJ, | TM. | TN. | TR. | TT, | TZ, | UA, | UG, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | |
| | RW: | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, |
| | | IT, | LU, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, |
| | | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | TG, | BW, | GH, | GM, | KE, | LS, |
| | | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | AZ, | BY, | KG, | KZ, | MD, |
| | | RU, | TJ, | TM | | | | | | | | | | | | | |
| EP | 1765 | 809 | | | A1 | | 2007 | 0328 | | EP 2 | 004- | 7437 | 65 | | 2 | 0040 | 616 |
| EP | 1765 | 809 | | | B1 | | 2008 | 1231 | | | | | | | | | |
| | R: | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, |
| | | IT, | LI, | LU, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | AL, | HR, | LT, | LV, |
| IN | 2007 | DN00 | 068 | | A | | 2007 | 0803 | | IN 2 | 007- | DN68 | | | 2 | 0070 | 102 |
| US | 2008 | 0319 | 002 | | A1 | | 2008 | 1225 | | US 2 | 008- | 5707 | 49 | | 2 | 0080 | 909 < |
| ORITY | Y APP | LN. | INFO | . : | | | | | | WO 2 | 004- | IB20 | 04 | | W 2 | 0040 | 616 |
| HER SO | DURCE | (S): | | | CAS | REAC | T 14 | 4:15 | 0237 | ; MA | RPAT | 144 | :150 | 237 | | | |

AB Title compds. I [Z = 0, NRx; Rx = H, alkyl, aralkyl (sic); Y = (CH2)n; n = 0-4; Rl = H, alkyl, heteroaryl, etc.] and their pharmaceutically acceptable salts were prepared For example, CH2O/MaBCNIS mediated reductive methylation of amine II (Rl = H) afforded claimed xanthene II(Rl = CH3). Compds. I are claimed to be muscarinic receptor antagonists (no data provided).

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:15012 HCAPLUS

DOCUMENT NUMBER: 144:108223

TITLE: Preparation of cannabinoid receptor ligands

Shankar, Bandarpalle B.; Gilbert, Eric; Rizvi, Razia INVENTOR(S): K.; Huang, Chunli; Kozlowski, Joseph A.; McCombie,

Stuart; Shih, Neng-Yang

PATENT ASSIGNEE(S): Schering Corporation, USA SOURCE: PCT Int. Appl., 108 pp.

CODEN: PIXXD2 Patent

DOCUMENT TYPE: LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| | | TENT : | | | | KIN | | | | | | | | | | D. | ATE | |
|------|------|--------|------|-----|-----|-------|------|------|---------|-----|--------|------|--------|-------|-------|-----|------|-------|
| | | 2006 | | | | 2.1 | | 2006 | | | 170 2 | | | | | _ | 0050 | C 2 1 |
| | WO | | | | | | | | | | | | | | | | | |
| | | W: | | | | | | ΑU, | | | | | | | | | | |
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| | | | LC, | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, |
| | | | NG. | NI, | NO. | NZ. | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, |
| | | | SL. | SM. | SY. | TJ. | TM. | TN. | TR. | TT. | TZ. | UA. | UG. | US. | UZ. | VC. | VN. | YU, |
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| | | 2571 | | | | | | | | | | | | | | | | |
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| | EP | 1768 | | | | | | | | | | | | | | | | |
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| | | | HR, | LV, | MK, | YU | | | | | | | | | | | | |
| | CN | 1010 | 0583 | 8 | | A | | 2007 | 0725 | | CN 2 | 005- | 8002 | 8468 | | 2 | 0050 | 621 |
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| | MX | 2007 | 0000 | 15 | | A | | 2007 | | | | | | | | | 0061 | |
| PRIO | | Y APP | | | | | | | | | US 2 | 004- | 5818 | 37P | | | | |
| | | | | | • • | | | | | | WO 2 | | | | | | | |
| OTHE | R Sr | TIRCE | (8). | | | CASI | REAC | т 14 | 4 - 10: | | | | | | | 2 | 0000 | |
| GI | | 01101 | | | | 02101 | | | | | , 1111 | | | | | | | |

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$$\begin{array}{c|c} C1 & & & \\ & &$$

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AB Compds. of formula R1-L1-A(Xm)-L2-B-N(R5)-L3-R6 [R1 = H, alkyl, CF3, etc.; R5, R6 = H, alkyl, haloalkyl, aryl, heterocycloalkyl, heteroaryl; A = Ph, naphthyl, pyridyl, thiazolyl, etc.; B = 0, 01, 02, etc., R4 = H, alkyl; Y = (C(R7)2)p, O(C(R7)2)q, S(O2)(C(R7)2)r, etc., R7 = H, alkyl, heteroaryl, cycloalkyl, etc., p = 1-3, q = 1, 2; Z = (R2)n, R2 = H, OH, halo, alkoxy, cycloalkyl, etc., n = 0-4; L1 = (C(R7)2)p, CO, SO, etc.; L2 = (C(R7)2)p, CO2, CF2, etc.; L3 = C(R7)2, CO, O, etc.] were prepared For example, spiro-piperidine I was prepared in several steps from amine II. These compds. can exhibit anti-inflammatory and immunomodulatory activity, and can be effective as CB2 receptor ligands in treating cancer and inflammatory, immunomodulatory or respiratory diseases or conditions.

Ι

REFERENCE COUNT: THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:1075634 HCAPLUS

DOCUMENT NUMBER: 143:373316

TITLE:

Combination therapy using adrenergic receptor antagonist in combination with muscarinic receptor antagonists and testosterone 5-reductase inhibitors

for lower urinary tract symptoms

INVENTOR(S): Chugh, Anita; Tiwari, Atul

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India PCT Int. Appl., 24 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

10552503.trn 02/02/2009

PATENT INFORMATION:

| PA | TENT I | | | | KIN | | DATE | | | APPL | | | | | | ATE | |
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| WO | 2005 | | | | A1 | | 2005 | | | | | | | | | 0040 | |
| | W: | AE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN. | CO, | CR. | CU, | CZ, | DE, | DK. | DM, | DZ, | EC. | EE. | EG, | ES. | FI, | GB, | GD, |
| | | GE, | GH. | GM. | HR. | HU. | ID, | IL. | IN. | IS. | JP. | KE. | KG. | KP. | KR. | KZ. | LC. |
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| EP | 1746 | | | | A1 | | 2007 | 0131 | | EP 2 | 004- | 7223 | 36 | | 2 | 0040 | 322 |
| | R: | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | | |
| | | IT, | LI, | LU, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR. | AL, | LT, | LV, | MK |
| WO | 2005 | 0923 | 42 | | A1 | | 2005 | 1006 | | WO 2 | 004- | IB86 | 6 | | 2 | 0040 | 323 |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
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| TN | 2006 | | | | A | | 2007 | 0427 | | IN 2 | 006- | DN60 | 61 | | 2 | 0061 | 017 |
| | 2006 | | | | A | | 2007 | | | IN 2 | | | | | 2 | 0061
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| | 2008 | | 317 | | A1 | | 2008 | | | IIS 2 | 008- | 5939 | 39 | | 2 | 0080 | 225 <- |
| | Y APP | | | | 112 | | 2000 | 0,10 | | WO 2 | | | | | w 2 | 0040 | 322 |
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| Th | is in | vent | ion | rela | tes : | to c | idmo | nati | | | | | | | | | benign |
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| co | mbina | tion | wit | h mîi | scar. | inic | rec | epto: | r an | tago | nist | and | opt | iona | 11v | incl | nded |

AB Testosterone 5-reductase inhibitor for relief of LUTS in a subject with or without BPH.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:371221 HCAPLUS

DOCUMENT NUMBER: 142:430125

INVENTOR(S):

TITLE: A preparation of 3-azabicyclo[3.1.0]hexane derivatives, useful for the treatment of drug

addiction, depression, and irritable bowel syndrome Coe, Jotham Wadsworth; Mchardy, Stanton Furst; Ragan,

John Anthony; Tickner, Derek Lawrence; Vanderplas,

Brian Clement PATENT ASSIGNEE(S):

Pfizer Products Inc., USA

SOURCE: PCT Int. Appl., 22 pp. CODEN: PIXXD2 Patent

English

FAMILY ACC. NUM. COUNT: 1

DOCUMENT TYPE:

LANGUAGE:

PATENT INFORMATION:

| | TENT N | | | | | | | | | | | | | | | | | |
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| | | SN, | TD, | TG | | | | | | | | | | | | | | |
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| | 25408 | | | | | | | | | | | | | | | | | |
| EP | 16758 | | | | | | | | | | | | | | | | | |
| | R: | | | | | | | | | | | | | NL, | SE, | MC, | PT, | |
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20075 | 148 | | | A | | 2006 | 1122 | | CN 2 | 004- | 8003 | 0530 | | 2 | 0041 | 006 | |
| BR | 20040 | 1154 | 59 | | A | | 2006 | 1219 | | BR 2 | 004- | 1545 | 9 | | 21 | 0041 | 006 | |
| JP | 20075 | 0083 | 0 / | | T | | 2007 | 0405 | | JP 2 | 006- | 5348 | 49 | | 2 | 0041 | 006 | |
| US | 20050
71292 | 1113 | 43/ | | AI | | 2005 | 1021 | | US Z | 004- | 9667. | 12 | | 2 | 0041 | 015 4 | < |
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3101 | 222 | | B2 | | 2000 | 1031 | | TN 2 | 000 | DXI1 2 | 2.2 | | 2 | 0000 | 210 | |
| TIV | 20061 | NOCO. | 322 | | A | | 2007 | 0000 | | IN Z | 000- | DN 13. | 22 | | 2 | 0060 | 310 | |
| 777 | 20060 | 1000 | 70 | | n. | | 2006 | 0500 | | MV 2 | 000- | 1072 | 20 | | 2 | 0060 | 414 | |
| NO. | 20060 | 1012 | / O
5-2 | | 7 | | 2006 | 0512 | | MA 2 | 006- | 2152 | | | 2 | 0000 | 517 | |
| PRIORIT | | | | | n | | 2000 | 0512 | | | | | | | P 2 | | | |
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| OTHER SO | OURCE (| (S): | | | CAS | REAC | т 14 | 2:430 | | | | | | | " 2 | 0011 | 000 | |

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

^{*} STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The invention relates to a preparation of 3-azabicyclo[3.1.0]hexane derivs. of formula I [wherein: X is halogen, OH, CN, 1 to 3 halogen substituted alkyl, or C(O)NH2, etc.; R1 and R2 with the carbon to which they are attached form 3- to 7-membered cycloalkyl or 4- to 7-membered heterocycloalkyl; R3 is alkyl; Y is (CH2)0-1], useful for the treatment of drug addiction, depression, eating disorder, and irritable bowel syndrome (no biol. data). For instance, 3-azabicyclo[3.1.0]hexane derivative II-MsOH was prepared via reductive amination of indanylmethanesulfonic acid derivative III with 3-azabicyclo[3.1.0] hexane derivative IV+TFA with a vield of 54%.

L17 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:369236 HCAPLUS

DOCUMENT NUMBER: 142:430124

TITLE: Preparation of 3-azabicyclo[3.1.0]hexane derivatives

as glycine transporter inhibitors for enhancing

cognition and treating psychoses INVENTOR(S): Lowe, John A.; Mchardy, Stan

PATENT ASSIGNEE(S): PCT Int. Appl., 59 pp.

SOURCE:

CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PAT | TENT | NO. | | | | | DATE | | | APPI | ICAT | ION | NO. | | D. | ATE | | |
|-------|------|-------|------|-----|-----|-------|------|-------|------|------|--------|----------------|------|-------|-----|-----|------|-----|----|
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| | | | | | | | | | | | WO 2 | 2004- | US34 | 083 | | 2 | 0041 | 014 | |
| | WO | 2005 | 0372 | 16 | | A3 | | 2005 | 0804 | | | | | | | | | | |
| | | W: | | | | | | | | | | BG, | | | | | | | |
| | | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | |
| | | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS | JP, | KE, | KG, | KP, | KR, | KZ, | LC, | |
| | | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG | MK, | MN, | MW, | MX, | MZ, | NA, | NI, | |
| | | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU. | SC, | SD, | SE, | SG, | SK, | SL, | SY, | |
| | | | TJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US. | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | |
| | | RW: | BW, | GH, | GM, | KE, | LS, | MW. | MZ, | NA, | SD | SL, | SZ, | TZ, | UG, | ZM, | ZW. | AM, | |
| | | | AZ, | BY, | KG, | KZ, | MD, | RU, | TJ, | TM, | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | |
| | | | EE, | ES, | FI. | FR. | GB, | GR, | HU, | IE, | IT. | LU, | MC, | NL, | PL, | PT, | RO, | SE, | |
| | | | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM | GA, | GN, | GQ, | GW, | ML, | MR, | NE, | |
| | | | SN, | TD, | TG | | | | | | | | | | | | | | |
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| | CA | 2542 | 279 | | | A1 | | 2005 | 0428 | | CA : | 2004- | 2542 | 279 | | 2 | 0041 | 014 | |
| | US | 2005 | 0096 | 375 | | A1 | | 2005 | 0505 | | US : | 2004- | 9649 | 31 | | 2 | 0041 | 014 | < |
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| | EP | 1680 | 124 | | | A2 | | 2006 | 0719 | | EP : | 2004- | 7952 | 70 | | 2 | 0041 | 014 | |
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| | | | IE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL, | TR, | BG, | CZ, | EE, | HU, | PL, | SK, | HR |
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| | NO | 2006 | 0021 | 93 | | A | | 2006 | 0515 | | NO : | 2006- | 2193 | | | 2 | 0060 | 515 | |
| | | APP | | | | | | | | | US : | 2003- | 5108 | 46P | | P 2 | 0031 | 014 | |
| | | | | | | | | | | | WO 2 | 2004- | US34 | 083 | | W 2 | 0041 | 014 | |
| OTHER | 0.00 | TIDOR | 101. | | | C2 C1 | 0020 | T 1/1 | 2.12 | 0124 | . 2.67 | TODAT | 1/12 | . /20 | 124 | | | | |

OTHER SOURCE(S): CASREACT 142:430124; MARPAT 142:430124

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AB The present invention relates to substituted bicyclic [3.1.0]amines (shown as I; variables defined below; e.g. thiophene-2-carboxylic acid N-[(3-benzyl-3-azabicyclo[3.1.0]hex-6-yl)methyl]-N-[3-fluoro-4-(morpholin-4-y1)phenyl]amide (II)), their pharmaceutically acceptable salts, pharmaceutical compns. thereof, and their use (no data) for the enhancement of cognition and the treatment of the pos. and neg. symptoms of schizophrenia and other psychoses in mammals, including humans. Compds. of the invention analyzed by an assay for their activity in inhibiting glycine reuptake in synaptosomes have IC50 values more potent than 10 μM ; no values for individual examples of I are given. For I: y = H or (R100)k-R1-(R6)m; k = 0-1; 1 = 0-3; m = 1-3; n = 0-4; o = 0-1; p = 0.000-3; q = 0-4; r = 1-2; s = 0-4; t = 0-1; u = 1-3; v = 1-3; R100 is -CH2-, -CH(C1-C3)alkyl-, -C(0)- or -SO2-. R1 is -(C1-C6)alkyl, -(C3-C8)cycloalkyl, -(4 to 7 membered) heterocycloalkyl, -(CH2)1-(C6-C10 aryl) or -(5 to 10 membered) heteroaryl, or (5 to 10 membered) tetrahydroheteroaryl; each R6 = H, halo, -(C1-C6) alkyl-B, (C1-C7) alkoxy-D, (C2-C4) alkenoxy, (C1-C6) alky1-OH, -OH, CN, -NO2, -CR7R8R9, NR20R21, -NHCOalkyl(C1-C3), NHSO2alkyl(C1-C3), C(0)OR22, -R23C(0)OR22, -C(O)NH2, phenyl-E, phenoxy-F, morpholine, -NR20R21, aryl, heteroaryl, -SR24, and -SO2R25; B and D = H, OH, Ph, di-Ph or trifluoro; E and F = H, alkyl, or halo. R2 and R3 = H or (C1-C3)alkyl; R4 and R5 = H or (C1-C3) alkyl; or R4 and R5 taken together form a double bond to an O to form (C:O), or R4 and R5 are connected with 2 to 4 C atoms to form a 3-5 member carbocyclic ring; A is H or (C1-C3)alkyl-(R28)n; R28 = (C1-C3)alkoxy, -OH, -NR12R13 or -NHC(0)(C1-C4)alkvl; X is a bond, -CH2(R29)p, -C(0) or -S02; R29 is -(C1-C3)alkyl; W is alkyl, -(C3-C6)cycloalkyl, -(3 to 7 membered) heterocycloalkyl, -(3 to 7 membered) heterocycloalkyl with 1 or 2 C:0 groups, Ph, or -(5 to 7 member) heteroaryl or heterocyclic; R30 is -(C1-C4)alkyl, -(C1-C3)alkoxy, CN, -F, -Cl, -Br, -I, -NR18R19, -NHC(O)R18, -SCH3 or -C(0)CH3. Q is a bond, -CH(R31)r, -C(0) or SO2; R31 = H or (C1-C3)alkyl; Z is -(C1-C8)alkyl, -(C3-C8)cycloalkyl, -(4 to 8 member) heterocycloalkyl, Ph or -(5 to 7 membered) heteroaryl or heterocyclic; R14 is F, Cl, Br, I, V, H, -NR16R17, -OR16, -C(0)NR16R17, -(S02)NR16R17, or NR32C:0-R33; R15 is -(C1-C3)alkyl, -(C1-C3)alkoxy, -F, -Br, -Cl, -I -OH or CN; V is -(C3-C8)cycloalkyl, -(C1-C5)alkyl, (5 to 7 membered) heterocycloalkyl, (5 to 7 membered)heterocycloalkyl substituted with 1 or 2 C:O groups or 1, 2, or 3-(C1-C5)alkyl groups; addnl. details are given in the claims. Although the methods of preparation are not claimed, 6 example prepns. are included. For example, II was prepared in 5 steps starting from (3-azabicyclo[3.1.0]hex-6-yl)methanol hydrochloride and involving 6-hydroxymethyl-3-azabicyclo[3.1.0]hexane-3-carboxylic acid tert-Bu ester, 6-[[[3-fluoro-4-(morpholin-4-yl)phenyl]amino]methyl]-3-

azabicyclo[3.1.0]hexane-3-carboxylic acid tert-Bu ester,
6-[[3-fluoro-4-(morpholin-4-yl)phenyl][(thien-2-yl)carbonyl]amino]methyl]3-azabicyclo[3.1.0]hexane-3-carboxylic acid tert-Bu ester and
thiophene-2-carboxylic acid N-[(3-azabicyclo[3.1.0]hex-6-yl)methyl]-N-[3fluoro-4-(morpholin-4-yl)phenyl)amide trifluoroactate as intermediates.

L17 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:41201 HCAPLUS

DOCUMENT NUMBER: 140:111279

TITLE: Preparation of 3,6-disubstituted

azabicyclo[3.1.0]hexane derivatives useful as muscarinic receptor antagonists

INVENTOR(S): Mehta, Anita; Sîlamkoti, Arundutt V.; Gupta, Jang Bahadur

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| | PATENT NO. | | | | | | APPLICATION NO. | | | | | | | | | | |
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| | | | | | | | | WO 2002-IB2663 | | | | | | | | | |
| | 2004 | | | | | | | | | | | | | | | | |
| | W: | AE. | AG. | AL. | AM. | AT. | AU, | AZ. | BA, | BB, | BG. | BR. | BY, | BZ. | CA, | CH, | CN. |
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OTHER SOURCE(S): MARPAT 140:111279

AB This invention generally relates to the derivs. of novel 3,6 disubstituted azabicyclo[3.1.0] hexanes. The title compds. [I; Ar = each (un) substituted aryl or heteroaryl having 1-2 hetero atoms selected from the group consisting of O, S and N atoms; R1 = H, HO, hydroxymethyl, amino, alkoxy, carbamoyl or halogen (e.g. F, Cl, Br, iodo); R2 = alkyl, C3-7 cycloalkyl, C3-7 cycloalkenyl, each (un)substituted aryl or heteroaryl having 1 to 2 hetero atoms selected from a group consisting of O, S and N atoms; W = (CH2)p (where p = 0, 1); X = O, S, N, no atom; Y = CHR5CO (wherein R5 = H, Me) or (CH2)q (wherein q = 0-4); Z = 0, S, NR10 (wherein R10 = H, C1-6 alkyl); Q = (CH2)n (wherein n = 0-4), or CHR5 (wherein R5 = H, OH, C1-6 alkvl, alkenvl alkoxv) or CH2CHR9 (wherein R9 = H. OH, C1-4 alkvl, C1-C4 alkoxv); R6, R7 = CO2H, H, Me, CONH2, NH2, CH2NH2; R4 = (un)substituted C1-15 saturated or unsatd, aliphatic hydrocarbon groups], pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters, enantiomers, diastereomers, N-oxides, polymorphs, prodrugs, or metabolites thereof are prepared These compds., e.g. $(1\alpha, 5\alpha, 6\alpha)$ -N-[(3-benzvl-3-azabicvclo(3.1.0)hexvl-6vllmethvll-2-hvdroxv-2,2-diphenvlacetamide, $(1\alpha, 5\alpha, 6\alpha) - N - (3-benzyl-3-azabicyclo(3.1.0)hexyl-6$ yl]methyl]-2-hydroxy-2-cyclohexyl-2-phenylacetamide, $(1\alpha, 5\alpha, 6\alpha)$ -N-[[3-benzyl-3-azabicyclo[3.1.0]hexyl-6v1]methy1]-2-hydroxy-2-cyclopenty1-2-phenylacetamide, $(1\alpha, 5\alpha, 6\alpha) - [(3-benzv1-3-azabicvclo(3.1.0)hexv1-6$ yl]methyl] 2-hydroxy-2,2-diphenylacetate, and are muscarinic receptor antagonists which are useful, inter-alia for the treatment or prophylaxis of various diseases or disorders of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors. In particular, the diseases or disorders are urinary incontinence, lower urinary tract symptoms (LUTS), bronchial asthma, chronic obstructive

pulmonary disorders (COPD), pulmonary fibrosis, irritable bowel syndrome,

obesity, and diabetes or gastrointestinal hyperkinesis.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ACCESSION NUMBER: 1993:517227 HCAPLUS DOCUMENT NUMBER: 119:117227

ORIGINAL REFERENCE NO.: 119:21087a,21090a

TITLE: Preparation of azabicycloalkylquinolones and

-naphthyridinones as antibacterials

INVENTOR(S): Brighty, Katherine E.

PATENT ASSIGNEE(S): Pfizer Inc., USA

SOURCE: U.S., 42 pp. Cont.-in-part of U.S. Ser. No. 551,212,

abandoned. CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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| OTHER SOURCE(S):
GI | MARPAT | 119:117227 | | |

AB Title compds. [I; Rl = H, alkyl, pharmaceutically acceptable cation; Y = Et, Me3C, vinyl cyclopropyl, FCH2CH2, 4-FC6H4, 2,4-F2C6H34; W = F, Cl, Br, alkyl, alkoxy, (methyl)amino; A = CH, CCl, C(OMe), CMe, CCN, N; AY = atoms

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to form a (0-or double bond-containing) (substituted) 5-6 membered ring; R2 = 01, 02; R3, R4, R5, R6, R7, R9 = H, Me, CH2NH2, CH2NHMe, CH2NHEt; R5, R6, R1, R9 may also = NH2, NHMe, NHEt; \leq 3 of R3, R4, R6, R7, R9, R10, R25 \neq H; if 3 of these \neq H, 21 of them = Me], were prepared as antibacterials (no data). Thus, 3-azabicyclo[3.1.0]hexane hydrochloride was heated with 1-cyclopropy1-6,7-difluoro-1,4-dihydro-4-oxoquinolinecarboxylic acid and Et3N in MoSO to give title compound II.

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